PACIFIC CREST ENVIRONMENTAL
1531 Bendigo Boulevard North PO Box 952 North Bend, WA 98045
T 425.888.4990 F 425.888.4994

August 4, 2010

Mr. Chuck Cline
Washington State Department of Ecology
Southwest Region
P.O. Box 47775
Olympia, Washington 98504-7775

RE: Former Sound Mattress & Felt Co. Site
1940 East 11th Street
Tacoma, Washington
VCP I.D. No. SW0857
Facility/Site No. 1232087
Pacific Crest No. 110-001

Dear Mr. Cline:

Enclosed for your review is one original and one copy of the Data Gap Report prepared by Pacific Crest Environmental, LLC (Pacific Crest) on behalf of the Sound Mattress & Felt Co., the former owner of the Former Sound Mattress & Felt Co. property located at 1940 East 11th Street in Tacoma, Washington. The Data Gap Report was prepared for consideration for adoption by the Washington State Department of Ecology (Ecology) and provides the results of the activities conducted to resolve data gaps identified in the Remedial Investigation Report dated December 9, 2009. The Data Gap Report for the Site is being submitted to Ecology's Voluntary Cleanup Program (VCP) for the purpose of obtaining an opinion letter.

Please feel free to contact the undersigned at (425) 888-4990 if you have questions or comments regarding the information provided herein.

Sincerely,

PACIFIC CREST ENVIRONMENTAL, LLC

William Carroll, L.G., L.H.G.
Principal Hydrogeologist

Attachment: RI Report dated December 9, 2009

cc: Mr. Robert Shea – Sound Mattress & Felt Co.
Mr. Bill Thielmann (QBE – via email)
Mr. Scott Hooten (Port of Tacoma)
Mr. Carl Forsberg (Forsberg & Umlauf, P.S.)

PACIFIC CREST ENVIRONMENTAL
1531 BENDIGO BOULEVARD NORTH PO BOX 952 NORTH BEND, WA 98045
T 425.888.4990 F 425.888.4994

DATA GAP INVESTIGATION REPORT

FORMER SOUND MATTRESS AND FELT PROPERTY
1940 EAST 11TH STREET
TACOMA, WASHINGTON
FS ID 1232087

Submitted by:

Pacific Crest Environmental, LLC
1531 Bendigo Boulevard North
North Bend, Washington 98045

Pacific Crest PN: 110-001

For:

Mr. Robert Shea
Sound Mattress and Felt Company
7424 Bridgeport Way, Suite 206
Lakewood, Washington 98499-8134

August 4, 2010

Prepared by:

Monty Busbee
Staff Hydrogeologist

Reviewed by:

William Carroll, LHG
Principal Hydrogeologist

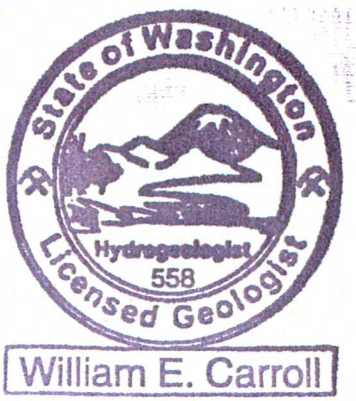


TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

1. INTRODUCTION

Pacific Crest Environmental, LLC (Pacific Crest) has prepared this Data Gap Investigation Report to document the results of the activities conducted in May and June, 2010 to resolve data gaps identified in the Remedial Investigation Report dated December 9, 2009 and finalize characterization of the nature and extent of a release of halogenated volatile organic compounds (HVOCs) that occurred at the former Sound Mattress and Felt Company (Sound Mattress) property located at 1940 East 11th Street in Tacoma, Washington (the former Sound Mattress Property) (Figure 1). The Sound Mattress and Felt Site (the Site) has been assigned Facility/Site No. 1232087 and Voluntary Cleanup Program (VCP) Project No. SW0857 by the Washington State Department of Ecology (Ecology) and is defined as the areal and vertical extent of the contaminants of concern (COCs) in the media of concern. The activities documented in this report were conducted to assess the Site under the Ecology VCP in accordance with the Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 of the Washington Administrative Code [WAC 173-340] as amended November 2007).

1.1 PURPOSE

The purpose of the investigation activities was to provide sufficient information regarding the nature and extent of the COCs to fill data gaps identified during the remedial investigation conducted by Pacific Crest from 2006 to 2009 and to support the completion of the conceptual site model (CSM) presented in the Remedial Investigation Report for the Site prepared by Pacific Crest in 2009 (Pacific Crest, 2009).

1.2 REMEDIAL ACTION RESPONSIBILITIES

The remedial action is being conducted under the direction of the former Sound Mattress and Felt owner:

Mr. Robert Shea
Sound Mattress and Felt Company
7424 Bridgeport Way, Suite 206
Lakewood, Washington 98499-8134

The environmental consultant for the remedial action is:

Ms. Lauren Carroll, Principal Hydrogeologist
Pacific Crest Environmental, LLC
P.O. Box 952
1531 Bendigo Boulevard North
North Bend, Washington 98045

2. BACKGROUND

2.1 SITE HISTORY

2.1.1 Site Discovery and Regulatory Status

In April 2004, during a preliminary due diligence subsurface investigation performed by Environmental Associates, Inc. (EAI) at the neighboring property located at 1132 Thorne Road (Shaub-Ellison Property), laboratory analysis detected tetrachloroethene (PCE) in one groundwater sample (boring B2) (EAI 2004a). Further investigation on the former Sound Mattress and Shaub-Ellison properties identified apparent source areas where releases of PCE appear to have occurred (EAI 2004a, EAI 2004b, EAI 2005, EMS 2005, LSI Adapt 2005, Pacific Crest 2006, Pacific Crest 2009) and have resulted in PCE and associated daughter products generated by reductive dechlorination, including trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (VC) in groundwater at concentrations above applicable MTCA cleanup levels (Site COCs).

In March 2007, Sound Mattress enrolled the Site in the VCP for the purpose of obtaining Opinion Letters from Ecology regarding the sufficiency of the remedial action activities in meeting the substantive requirements of MTCA and, ultimately, to obtain a No Further Action (NFA) determination for the Site.

2.1.1 Site Specific Cleanup Levels

In 2009 Pacific Crest developed site specific cleanup levels (RI cleanup levels) as part of the Remedial Investigation conducted at the Site. The rationale for the selection of the RI cleanup levels is presented in the Remedial Investigation Report prepared by Pacific Crest in 2009 (Pacific Crest, 2009). The RI cleanup levels for soil and groundwater are presented in Tables 1, 4, and 5.

2.1.2 Site and Property Description

The Site is located within a portion of the former Sound Mattress Property and marginally extends onto the adjacent Shaub-Ellison Property to the southeast, and extends to the northwest under East 11th Street and the Port of Tacoma property beyond (Figure 2). Both the former Sound Mattress Property and the Shaub-Ellison Property are currently owned by the Port of Tacoma, which purchased the properties in October 2006 and August 2007, respectively.

The former Sound Mattress Property is an irregular-shaped parcel that covers an area of approximately 5.77 acres. Improvements to the former Sound Mattress Property include an 112,280-square-foot masonry warehouse building (Building).

2.1.3 Property Development and Uses

A chronologic summary of the development of the former Sound Mattress Property and the Shaub-Ellison Property is provided below:

- Prior to 1948, the former Sound Mattress Property was vacant and undeveloped.

- In 1948, Washington Steel Products (Washington Steel) constructed the northern portion of the existing Building. Washington Steel extended the Building with additions in 1950 and 1953 (Tacoma Public Library - Tacoma-Pierce County Buildings Index).
- Between 1948 and 1959, Washington Steel conducted manufacturing operations in the Building that included the manufacture of hardware including enameled metal drawers, knobs, pulls and hinges (Tacoma Library Photo Archive).
- In 1959, Ekco Products Company (Ekco) purchased Washington Steel and in 1965 American Home Products Corp (American Home Products) purchased Ekco.
- In 1964, Sound Mattress and Felt purchased the Property. Contrary to previously available information, Sound Mattress never occupied or conducted manufacturing operations on the former Sound Mattress Property but, instead, continued to lease portions of the Building to Ekco and later American Home Products until at least 1967.
- In 1965, Sound Mattress leased a portion of the Building to Brown and Haley, Inc. (Brown and Haley), for commercial activities associated with the sales and distribution of Brown and Haley candy (Pacific Crest 2006). Brown and Haley vacated the Property in 2010.
- The Polk City Directory identifies the tenants of the former Sound Mattress Property as "Washington Steel Products" in 1960 and as Brown & Haley, Ekco Products Co., Dell's Copy Shop, Washington Line Federal Credit Union, and Washington Steel Products in 1967. From 1972 through the present, the former Sound Mattress Property tenants are listed as Brown & Haley (1972, 1977, 1982, 1987, 1992, 2001, and 2005) and/or Westlocknational (1997); Cardservice International (2001 and 2005), Northwest Cardservice (2001); Hoops Unlimited (2001) and Westpac Marketing (2001).
- In 1970, the Shaub-Ellison Property consisted of undeveloped tide flats and was purchased by Mr. Sanford Shaub from Mr. Robert Shea Sr. (Sound Mattress and Felt).
- In 1973, the Shaub-Ellison property was first developed with a 7,300-square-foot, split-level, concrete tilt-up building erected on approximately 0.78 acre. Additional improvements to the Shaub-Ellison Property include an asphalt-paved storage yard in the western portion of the parcel, and an asphalt-paved parking area on the eastern portion of the parcel.
- From 1974 through 1998, the property was operated by the Shaub-Ellison Company, an automotive retail tire service facility.
- Since 2000, the Shaub-Ellison Property has operated as RevChem Plastics, an industrial chemical and supply company.
- The former Sound Mattress Property is currently unoccupied.

2.1.4 Surrounding Properties

The former Sound Mattress Property is bounded to the north by Thorne Road and beyond by Suburban Propane; to the west by East 11th Street and beyond by the Port of Tacoma operations office; to the south and east by the Shaub-Ellison Property; and to the south by Castan Trucking, a general freight trucking company.

2.2 NATURAL CONDITIONS

2.2.1 Physiographic Setting

The Site is located in the near-shore tide flats area of the Port of Tacoma. In the late 1800s, the southern and eastern shoreline of Commencement Bay consisted of tide flats formed as part of the Puyallup River delta. Dredge and fill activities conducted since the 1920s have significantly changed the estuarine nature of this shoreline and the tide flats. The historic meandering streams and rivers were dredged to form waterways; and the intertidal areas between the waterways were filled with dredge material to create usable land. The newly created land has since been used for commercial and industrial operations including shipbuilding, chemical manufacturing, ore smelting, oil refining, food preservation, and transportation facilities.

2.2.2 Geologic Setting

The regional unconsolidated geology in the vicinity of the Site consists primarily of interbedded Pleistocene Era clays, silts, and sands deposited as a result of glacial activity. Glacial outwash sediments in the region were deposited, eroded, and re-deposited by rivers and streams. The advance and retreat of glacial ice sheets also resulted in the compaction of underlying clay sediments into glacial till. Alluvial deposits in the region are present in the vicinity of streams in the major regional river valleys and typically consist of unconsolidated, stratified, clay, silt, and very fine to fine sand, with considerable organic matter. Medium to coarse sand and gravel units underlie much of the fine-grained floodplain sediment in the region and are common in small stream valley bottoms (Galster and Laprade. 1991).

2.2.3 Hydrogeologic Setting

Groundwater aquifers in the Puget Sound region are generally confined to recent alluvial deposits of sands and gravel, which are stratigraphically delimited by aquitards (low permeability units) consisting of glacial till deposits. Discontinuous perched shallow groundwater zones may be seasonally or locally present above the glacial till deposits (Galster, and Laprade. 1991).

2.2.4 Surface Water

The former Sound Mattress Property is located approximately 350 feet southeast of the Sitcum Waterway and Commencement Bay. In 1983, the United States Environmental Protection Agency (EPA) placed portions of Commencement Bay, including the Sitcum Waterway, on the Superfund National Priorities List due to widespread contamination of the water, sediments, and upland areas.

3. SITE INVESTIGATION

3.1 HISTORIC SITE INVESTIGATION ACTIVITIES

Since 2004, subsurface investigation activities have been conducted at the Site to assess the nature and extent of affected soil and groundwater, and characterize the geologic and hydrogeologic conditions. The investigation activities conducted between 2004 and 2009 have been documented in reports previously submitted to Ecology and have included: advancing soil borings; installing groundwater monitoring wells; collecting soil and groundwater samples for laboratory analysis; performing a passive soil vapor survey; and, assessing the results in accordance with industry practice. A chronologic summary of the investigation activities is provided below:

- In April 2004, EAI advanced 17 soil borings (Borings B1 through B17) during a preliminary due diligence subsurface investigation at the Shaub-Ellison Property. EAI collected soil and groundwater samples from the borings and submitted the samples to an independent laboratory for analysis (EAI 2004a).
- In April and May 2004, EAI, advanced an additional 11 borings (Borings B18 through B28) and four test pits (TP1 through TP4) on the Shaub-Ellison Property. EAI collected soil samples from the borings and test pits, and groundwater samples from select borings, and submitted the samples to an independent laboratory for analysis (EAI 2004a).
- In July 2004, EAI advanced five borings (B29 through B32 and MW-4) and converted four of the borings into groundwater monitoring wells (MW-1 through MW-4). EAI collected groundwater samples from the borings and wells and submitted the samples to an independent laboratory for analysis (EAI 2004b).
- In January 2005, EAI advanced eight borings (B-33 through B-40) and converted four of the borings, located in the alley between the Sound Mattress Property and the Shaub-Ellison Property, into groundwater monitoring wells (MW-5 through MW-8). EAI collected groundwater samples from the borings and wells and submitted the samples to an independent laboratory for analysis (EAI 2005).
- In July 2005, LSI Adapt collected groundwater samples from monitoring wells MW-1 through MW-8 and submitted the samples to an independent laboratory for analysis. During the same groundwater monitoring event, Environmental Management Services (EMS) collected split samples from wells MW-5 through MW-8 (EMS 2005).
- In August 2005, LSI Adapt advanced five borings to 16 feet below ground surface (bgs) (SC-1 through SC-4, and MW-9) and converted one boring into a groundwater monitoring well (MW-9) (LSI Adapt 2005).
- In April 2006, Pacific Crest assessed the alley between the former Sound Mattress Property and the Shaub-Ellison Property for conductive and non-conductive underground utilities (Pacific Crest 2006).
- In May 2006, Pacific Crest conducted a soil gas survey to assess the concentrations of HVOCs in the Site vadose zone using W.L. Gore and Associates (Gore) soil vapor sorbent modules (Sorbers) and submitted the Sorbers to Gore for analysis of HVOCs by modified SW-846 Method 8260/8270 (Pacific Crest 2006).

- In October 2006, Pacific Crest advanced one soil boring (Boring MW-10) and converted it into a groundwater monitoring well (MW-10). Pacific Crest collected a soil samples from the boring and submitted the sample to an independent laboratory for analysis (Pacific Crest 2009).

- In February 2007, Pacific Crest measured groundwater elevations in all Site monitoring wells and collected groundwater samples from monitoring wells MW-1 through MW-8, and MW-10, and submitted these samples to a laboratory for analysis for HVOCs (Pacific Crest 2009).

- In November 2007, Pacific Crest advanced four soil borings (B-1 through B-4) and collected soil and groundwater samples from these borings and submitted these samples to an independent laboratory for analysis for HVOCs (Pacific Crest 2009).

- In November 2008, Pacific Crest advanced boring MW-11, converted the boring into monitoring well MW-11, collected a soil sample from the boring and submitted this sample to an independent laboratory for analysis for HVOCs (Pacific Crest 2009).

- In November 2008, Pacific Crest measured groundwater elevations in all Site monitoring wells and collected groundwater samples from monitoring wells MW-1 through MW-11 and submitted these samples to an independent laboratory for analysis for HVOCs (Pacific Crest 2009).

- In March 2009, Pacific Crest advanced three soil borings and converted them into groundwater monitoring wells MW-12, MW-13, and MW-14. Soil samples were collected from the borings and groundwater samples were collected from the wells and submitted to an independent laboratory for analysis for HVOCs (Pacific Crest 2009).

- In April 2009, Pacific Crest conducted a 72-hour tidal study by monitoring groundwater elevations in select Site monitoring wells using data logging pressure transducers (Pacific Crest 2009).

- In June 2009, the Port of Tacoma conducted an indoor air survey by collecting indoor air and ambient air samples and submitting these samples to an independent laboratory for analysis for HVOCs (Pacific Crest 2009).

- In August 2009, Pacific Crest conducted a soil vapor survey by installing and retrieving Gore-Sorber passive soil vapor sampling modules at 33 locations beneath the Building. Soil vapor modules were submitted to the Gore laboratory for analysis for HVOCs (Pacific Crest 2009).

3.2 DATA GAP INVESTIGATION ACTIVITIES

The Data Gap Investigation activities were conducted in two phases during May and June of 2010 to characterize the nature and extent of the Site COCs and fill remedial investigation data gaps.

The following data gaps had been identified based on the available site characterization data:

- Data Gap No. 1 - The location of the source area where releases of PCE occurred within the Building appears to be the in the vicinity of the former plating area. Further detailed characterization of the nature and extent of concentrations of the COCs in soil and groundwater is necessary to characterize the exact location and extent of the source area within the Building where the release of PCE occurred.

- Data Gap No. 2 - The characterization of the nature and areal and vertical extent of COCs in groundwater is incomplete. Further characterization of groundwater quality to the north of the former Sound Mattress and Felt Property is necessary to delineate the extent of concentrations of HVOCs in groundwater to below RI Cleanup Levels.

The scope of work for the Data Gap Investigation is provided below:

- Conducting underground utility locating activities at the proposed boring locations;
- Advancing ten soil borings (borings B-5 through B-14) using direct-push sampling methods, and collecting soil and reconnaissance groundwater samples from the borings;
- Advancing one boring using hollow-stem auger drilling methods, collecting a soil sample from the boring, and converting the boring into a groundwater monitoring well (well MW-15);
- Developing the monitoring well, and surveying the vertical elevation of the top of the well casing to a datum in common with existing Site monitoring wells;
- Collecting a groundwater sample from, and evaluating tidal influence in the new well;
- Conducting groundwater monitoring in all site wells; and,
- Submitting select soil and groundwater samples to an independent laboratory for analysis for HVOCs by SW-846 Method 8260B.

A narrative summary of the field activities for the recent investigation activities is provided in the following sections.

3.2.1 Underground Utility Locating

On May 25 and 26, and June 15, 2010, Pacific Crest and Applied Professional Services of North Bend, Washington conducted subsurface utility locating activities to determine the location of conductible utilities in the vicinity of the proposed boring locations. Utility maps were provided by the Port of Tacoma. The Washington One-call public utility locating service was also contacted at least 72 hours prior to initiation of field activities.

3.2.2 Direct-Push Soil Borings

On May 25 and 26, 2010, seven soil borings (borings B-5 through B-11) were advanced by Environmental Services Network Northwest (ESN) under the direction of a Pacific Crest geologist using direct-push hydraulic sampling methods. Two borings (B-5 and B-6) were advanced in the parking area to the northeast of the Port of Tacoma administration building located at 1 Sitcum Way to characterize the northwest extent of the Site. Boring B-7 was completed on the northeast side of Thorne Road near the intersection with East 11th Street to characterize the northern extent of the Site. Four borings (B-8 through B-11) were advanced

beneath the floor of the Building to provide information regarding the distribution of Site COCs in soil and groundwater in the vicinity of the potential Site source area and the previously detected concentration of PCE in soil (MW-11) that exceeded the MTCA cleanup level for this compound. The boring locations are illustrated on Figure 2.

On June 15 and 16, 2010, three soil borings (borings B-12 through B-14) were advanced by ESN under the direction of a Pacific Crest geologist using direct-push hydraulic sampling methods. Borings B-12 was advanced in the parking area of the Port of Tacoma administration building located at 1 Sitcum Way to characterize the northwest extent of the Site. Boring B-13 was advanced on the northwest side of Former Sound Mattress Building to provide data regarding the extent of HVOCs in soil and deeper groundwater to the northwest of the known extent of soil contamination. Boring B-14 was advanced beneath the floor of the Building primarily to provide information regarding the extent of Site COCs in soil to the southwest. The boring locations are illustrated on Figure 2.

Soil samples were collected continuously during advancement of the borings using a four foot long Geoprobe™ macro-core piston-type sampler. Samples collected from the borings were described in accordance with the Unified Soils Classification System (USCS), and inspected for visual and olfactory evidence of contamination. Soil vapor headspace analysis was conducted to field screen the samples for total volatile organic compound (TVOC) concentration using a photoionization detector (PID). The soil vapor headspace analysis was performed by placing a portion of soil from each sample interval into a re-sealable plastic bag, allowing the sample to warm for several minutes, and recording the highest TVOC concentration inside the bag measured over a 30-second span using the PID. The USCS descriptions, observations of contamination, and field screening data were recorded on boring logs. Copies of the boring logs are provided in Appendix A.

Soil samples were collected for submittal to an analytical laboratory from just above first encountered groundwater in all borings. A soil sample was also collected for analysis from approximately four feet bgs in borings B-8 through B-11. Samples collected for submittal were prepared using SW-846 Method 5035A. The soil samples were submitted to OnSite Environmental, Inc. (OnSite) of Redmond, Washington, for analysis for HVOCs by SW-846 Method 8260B. Copies of the laboratory analytical reports are provided in Appendix B.

Two reconnaissance groundwater samples were collected from borings B-5 through B-12 at a depth just below first encountered groundwater (approximately 7.5 to 10 feet bgs), and from the maximum depth of each boring (26 to 30 feet bgs). One reconnaissance groundwater sample was collected from boring B-13 at the maximum depth of the boring of 28 feet bgs. Samples were collected using a peristaltic pump and dedicated tubing through the screened section of a Geoprobe™ ScreenPoint 15 Water Sampler, direct-push well screen. Prior to collecting each sample, approximately one gallon of groundwater was purged from the boring using a peristaltic pump and 0.25-inch dedicated polyethylene tubing. During purging, groundwater geochemical parameters, including temperature, specific conductivity, pH, dissolved oxygen, and oxidation/reduction potential (ORP) were recorded approximately every three minutes using a YSI 556 multi-parameter water quality meter equipped with a flow-through cell. Groundwater samples were collected from upstream of the flow-through cell. Groundwater samples were transferred directly from tubing on the peristaltic pump into laboratory-prepared 40-milliliter sample vials preserved with hydrochloric acid. The vials were completely filled with water to eliminate potential loss of volatile compounds to headspace. Each vial was checked to ensure that there were no air bubbles present in the sample, labeled, and placed on ice in a cooler.

Groundwater samples collected from the borings were transported to OnSite under standard chain-of-custody protocols. OnSite analyzed the samples for HVOCs by SW-846 Method 8260B on a standard turnaround time. Copies of the laboratory analytical reports are provided in Appendix B.

3.2.3 Well Boring

ESN advanced boring MW-15 using hollow-stem auger drilling methods on June 15, 2010, under the direction of a Pacific Crest field geologist. Upon completion, the boring was converted into a groundwater monitoring well (MW-15). The boring and subsequent well location was selected to provide soil and groundwater data to delineate the down-gradient (northwest) portion of the Site. The boring was advanced to a total depth of 36 feet bgs. Groundwater was encountered at approximately nine feet bgs. The boring location is illustrated on Figure 2.

Soil samples were collected at four foot intervals during advancement of the boring using a 4-foot by 2-inch, direct-push, piston type sampler. Samples collected from the borings were described in accordance with the USCS, and inspected for evidence of visual and olfactory indication of contamination. Soil vapor headspace analysis was conducted to field screen the samples for TVOC concentration using a PID. The soil vapor headspace analysis was performed by placing a portion of soil from each sample interval into a re-sealable plastic bag, allowing the sample to warm for several minutes, and recording the highest TVOC concentration inside the bag measured over a 30-second span using the PID. The USCS descriptions, observations of contamination, and field screening data were recorded on boring logs. A copy of the boring log is provided in Appendix A.

The soil sample collected from the interval above groundwater with the highest headspace TVOC concentration was prepared for submittal to the analytical laboratory using SW-846 Method 5035A. The soil sample was submitted to OnSite of Redmond, Washington, for analysis for HVOCs by SW-846 Method 8260B. A copy of the laboratory analytical report is provided in Appendix B.

3.2.4 Monitoring Well Installation

Upon completion of boring MW-15, a groundwater monitoring well was installed in the boring in accordance with the *Minimum Standards for Construction and Maintenance of Wells* (WAC 173-160). The well was constructed using 10 feet of 2-inch inner diameter, Schedule 40 PVC 0.010-inch well screen, flush threaded to blank PVC casing. Total well depth was 30 feet bgs. Following installation, the well was developed by purging approximately three submerged casing volumes of water from the well and the elevation of the top of the well casing was surveyed relative to the arbitrary datum used for the existing monitoring well network at the Site. The well construction diagram is provided on the boring log in Appendix A.

3.2.5 MW-15 Tidal Study

From June 15, 2010 to June 17, 2010, Pacific Crest monitored the depth to groundwater in newly installed monitoring well MW-15 using a data-logging pressure transducer. The tidal study was conducted for the purpose of evaluating the timing and magnitude of the influence of tidal surface water fluctuations on the elevation of groundwater in the vicinity of the nearby Sitcum Waterway of Commencement Bay. Barometric pressure data and tidal stage data for the Sitcum Water way were obtained from NOAA station 9446484 located in the Sitcum

Waterway (http://tidesandcurrents.noaa.gov/geo.shtml?location=9446484). Depth to water data recorded by the transducer was adjusted for barometric pressure using the NOAA data. The adjusted depth-to-water data was used to compute a 25-hour mean groundwater elevation (Serfes, 1991) for use in the potentiometric calculations for the Site. The tidal study data are provided in Appendix C.

3.2.6 Groundwater Monitoring and Sampling

Pacific Crest conducted groundwater monitoring in the existing monitoring wells at the Site during an event conducted on June 17, 2010. Groundwater monitoring was conducted at the Site by removing the manhole and well caps in each of the existing wells, and permitting the water level in each well to equilibrate with atmospheric pressure for a minimum of 15 minutes prior to collecting groundwater level data. Groundwater levels were measured relative to a surveyed mark located on the north side of each well casing to an accuracy of 0.01 foot using an electronic water level indicator.

A groundwater sample was collected on June 17, 2010 from monitoring well MW-15. Groundwater sampling was performed using EPA Low-Flow (minimal drawdown) Groundwater Sampling Procedures (EPA, 1996). Prior to groundwater sample collection, the well was purged using a peristaltic pump and dedicated polyethylene tubing at a flow rate of approximately 300 milliliters per minute. During purging, groundwater geochemical parameters, including temperature, specific conductivity, pH, dissolved oxygen, and oxidation/reduction potential (ORP) were measured and recorded approximately every three minutes using a YSI 556 multi-parameter water quality meter equipped with a flow-through cell. The groundwater sample was collected from upstream of the flow-through cell upon stabilization of the geochemical parameters.

The groundwater sample was transferred directly from dedicated tubing on the peristaltic pump into laboratory-prepared 40-milliliter sample vials preserved with hydrochloric acid. The vials were completely filled with water to eliminate potential loss of volatiles to headspace. Each vial was checked to ensure that there were no air bubbles present in the sample, labeled, placed on ice in a cooler, and transported to OnSite under standard chain-of-custody protocols on a standard turnaround time. OnSite analyzed the groundwater sample for HVOCs by SW-846 Method 8260B. A copy of the laboratory analytical report is provided in Appendix B.

3.2.7 Decontamination and Waste Management

All non-dedicated field sampling equipment was cleaned and decontaminated between each use and prior to leaving the Site using an aqueous solution of Alconox, and triple rinsed in deionized water. Investigation-derived waste, including soil, purge water, and decontamination wash water were temporarily contained on the Property in sealed and appropriately labeled Washington State Department of Transportation-approved steel drums pending waste profiling and proper disposal.

3.3 RESULTS

The results of Data Gap Investigation are summarized in the following sections.

3.3.1 Soil

The soil analytical data are summarized in Table 1 and displayed on Figure 3. The investigation results related to the condition of soil at the Site are summarized below:

- The Site subsurface is described as generally consisting of sand and gravel fill to a depth of approximately one foot bgs. Sand is encountered to between 12 feet bgs and 15 feet bgs. The sand overlies a one to five foot thick silt layer which overlies sand extending to between 25 feet bgs and 30 feet bgs where silt is again encountered. In borings B-5, B-6, and B-7, silt is encountered at 25.5 feet bgs to 31 feet bgs. In borings B-9 through B-11, the deeper silt is not encountered at the maximum depth explored of 28 feet bgs. A cross-sectional view of the Site lithology is provided as Figure 7.
- Laboratory analysis detected concentrations of PCE in soil ranging from 0.029 milligrams per kilogram (mg/kg) to 16 mg/kg in samples collected from borings B-8, B-9, B-10, B-11, B-13, and B-14.
- Laboratory analysis detected concentrations of TCE in soil ranging from 0.0012 mg/kg to 0.044 mg/kg in samples collected from borings B-8, B-9, B-10, B-11, B-13, and B-14.
- Laboratory analysis detected concentrations of cis-1,2-DCE in soil ranging from 0.0027 mg/kg to 0.063 mg/kg in samples collected from borings B-9, B-10, and B-13.
- Laboratory analysis detected concentrations of t-DCE in soil of 0.0027 mg/kg in a sample collected from borings B-10.
- Laboratory analysis did not detect VC in soil at concentrations greater than laboratory practical quantitation limits (PQLs).
- No Site COCs were detected in soil samples collected from borings B-5, B-6, B-7, B-12, or MW-15

3.3.2 Groundwater

The investigation results related to the condition of groundwater at the Site are summarized below:

- Shallow groundwater beneath the Site is encountered in the upper sand (described above) between the depths of approximately 7.5 feet bgs to 11 feet bgs. and saturated conditions extend to the top of the clayey silt at approximately 30 feet bgs that is interpreted to represent the base of the shallow water-bearing zone. The depth to groundwater at the Site ranged from a high of 4.52 feet below the top of casing (BTOC) in well MW-9 measured on June 17, 2010 to a low of 15.82 feet BTOC in well MW-15 measured on June 16. The groundwater elevation data are summarized in Table 2.
- The potentiometric surface calculated for the Site, based on the June 17, 2010 groundwater monitoring data, indicates a groundwater flow direction to the north-northwest under an average hydraulic gradient of 0.008 feet per feet (ft/ft). A 25-hour mean relative groundwater elevation was calculated for MW-15 for use in the potentiometric surface calculations (Table C-1, Appendix C) (Serfes, 1991). The potentiometric surface map calculated for June 17, 2010 is presented as Figure 6.
- Comparison of the depth to groundwater data collected with the data-logging transducer for well MW-15 with six-minute tidal stage data from the Sitcum Waterway indicates that

the level of groundwater in the well reaches the highest or lowest condition within approximately 12 minutes of minimum or maximum tidal stage in the Sitcum Waterway. Depth to groundwater in MW-15 varied from 6.44 feet bgs to 15.82 feet bgs. Six minute MW-15 depth to water and Sitcum Waterway tidal stage data are provided in Table C-2 in Appendix C. A graph depicting the depth to groundwater in MW-15 and Sitcum Waterway tidal stage is presented as Chart C-1 in Appendix C.

- Groundwater geochemical parameters collected during purging included temperature, specific conductivity, pH, dissolved oxygen, and ORP. No significant trends or anomalies were noted in temperature, pH, dissolved oxygen, or ORP. The groundwater geochemical data are summarized in Table 3.
- The laboratory analytical results for groundwater samples collected from monitoring wells are summarized on Table 4 and the results analysis of the sample collected from MW-15 on June 17, 2010 are presented below:
    - Laboratory analysis of the sample collected from well MW-15 detected VC at a concentration of 280 micrograms per liter (µg/l).
    - Laboratory analysis of the sample collected from well MW-15 detected cis-1,2-DCE at a concentration of 1400 µg/l.
    - Laboratory analysis of the sample collected from well MW-15 detected t-DCE at a concentration of 12 µg/l.
    - There were no additional detections of HVOCs in the groundwater sample collected from well MW-15 at concentrations greater than laboratory PQLs.
- The laboratory analytical results for reconnaissance groundwater samples collected to date are presented in Table 5 and summarized below:
    - Laboratory analysis detected concentrations of PCE in groundwater ranging from 0.021 µg/l to 870 µg/l in samples collected from borings B-8, B-9, B-10, B-11, and B-13.
    - Laboratory analysis detected concentrations of TCE in groundwater ranging from 0.39 µg/l to 1200 µg/l in samples collected from borings B-9, B-10, and B-13.
    - Laboratory analysis detected concentrations of cis-1,2-DCE in groundwater ranging from 0.35 µg/l to 15,000 µg/l in samples collected from borings B-5, B-6, B-8, B-9, B-10, B-11, B-12, and B-13.
    - Laboratory analysis detected concentrations of t-DCE in groundwater ranging from 2.0 µg/l to 110 µg/l in samples collected from borings B-6, B-8, B-9, B-10, B-11, and B-12.
    - Laboratory analysis detected concentrations of VC in groundwater ranging from 1.7 µg/l to 490 µg/l in samples collected from borings B-6, B-7, B-11, B-12, and B-14.
    - There were no additional detections of HVOCs in the reconnaissance groundwater samples at concentrations greater than laboratory PQLs.

4. CONCLUSIONS

The conclusions of the RI and Data Gap Investigations described in this report are summarized in the following sections.

4.1 SOIL

The results of the Data Gap Investigation indicate the following with respect to soil conditions at the Site:

- The unsaturated soil at the Site consists of sand and/or gravel fill to a depth of up to 3 feet bgs, overlying fine sand with occasional minor silt and shell fragments. The silt encountered at 30 feet bgs is interpreted to be the top of the former tideflat.
- The laboratory analysis of soil samples collected from borings advanced beneath the former Sound Mattress Building (B-8 through B-11) detected PCE at concentrations that exceeded the RI Cleanup Level of 0.334 mg/kg and TCE, cis-1,2-DCE and t-DCE at concentrations less than respective RI Cleanup Levels but greater than laboratory PQLs.
- The highest PCE concentration detected to-date in soil was 16 mg/kg in a sample collected from boring B-10 from four feet bgs. This suggests the primary source area is in the vicinity of this boring.
- HVOCs were detected at concentrations greater than the laboratory PQL but less than the RI cleanup levels in borings B-13 and B-14.
- There were no detections of HVOCs in soil samples collected from the down-gradient borings B-5 through B-12.
- The laboratory analysis of soil samples collected from borings MW-10, MW-13, and MW-14 detected PCE at concentrations below the RI Cleanup Level but above the laboratory PQL. In the remaining samples, concentrations of PCE were not detected above the laboratory PQL.

In general, the results of the RI and Data Gap Investigations support the following conclusions with respect to soil conditions at the Site:

- Soil with concentrations of HVOCs exceeding applicable RI Cleanup Levels has been confirmed only at locations located beneath the building footprint. The areal and vertical extent of HVOCs in soil at concentrations exceeding their applicable RI Cleanup Levels appears to be generally defined and is limited to the area beneath the southeast portion of the former Sound Mattress Building. The estimated areal extent of soil requiring remedial action is illustrated on Figure 3. The estimated vertical extent of soil requiring remedial action is illustrated in cross-section on Figure 3.

4.2 GROUNDWATER

The results of the Data Gap Investigation indicate the following with respect to the condition of groundwater at the Site:

- Shallow groundwater at the Site is encountered at approximately 10 feet bgs, and is located in a shallow unconfined aquifer that is extends to approximately 30 feet bgs. This

aquifer directly overlies a competent silt layer reported to be up to 11 feet thick at the Port of Tacoma.

- The laboratory analysis of a groundwater sample from well MW-15 detected VC at 280 µg/l which exceeds the RI cleanup level of 9 µg/l, and cis-1,2-DCE at 1400 µg/l which is less than the RI cleanup level of 13,000 µg/l.
- The laboratory analysis of reconnaissance groundwater samples collected in May and June, 2010 (Borings B-5 through B-13) indicate the following:
    - A concentration of VC of 180 µg/l was detected in a groundwater sample collected at 30 feet bgs from boring B-6, which was located on Port of Tacoma Property to the northwest of East 11th Street and down-gradient from the Former Sound Mattress and Felt Property. This exceeds the RI cleanup level of 9 µg/l.
    - VC was detected at a concentration of 490 µg/l in a groundwater sample collected at 16 feet from boring B-11 located beneath the former Sound Mattress Building. This exceeds the RI cleanup level of 9 µg/l.
    - PCE, TCE and cis-1,2-DCE were detected at concentrations exceeding the respective RI cleanup levels in a groundwater sample collected at 15 feet bgs from boring B-9 located beneath the former Sound Mattress Building.
    - HVOCs were not detected at concentrations above RI cleanup levels in borings B-5 and B-12, which are located on Port of Tacoma Property to the north of 11th Street and down-gradient from the Former Sound Mattress Property.
    - HVOCs were not detected at concentrations exceeding RI cleanup levels in boring B-7 located to the north of Thorne Road.
    - HVOCs were not detected at concentrations exceeding RI cleanup levels in borings B-8 and B-10 located to beneath the Sound Mattress Building.

In general, the RI and Data Gap results support the following conclusions with respect to the condition of groundwater at the Site:

- The Site conditions are supportive of anaerobic reductive dechlorination of PCE and its HVOC degradation products by naturally occurring populations of bacteria. However, the natural attenuation of the HVOC plume in groundwater at the Site is not proceeding beyond cis-1,2-DCE and VC, resulting in a buildup of these compounds in the down-gradient portion of the plume.
- Delineation of the areal and vertical extent of HVOC concentrations exceeding RI cleanup levels in groundwater beneath the Former Sound Mattress Property has been completed by groundwater samples collected from borings B-8 and B-13.
- Delineation of the areal and vertical extent of HVOC concentrations exceeding RI cleanup levels in groundwater down-gradient from the Former Sound Mattress Property has been completed by groundwater samples collected from borings B-5, B-6, and B-7.
- A groundwater sample from well MW-15 indicates concentrations of cis-1,2-DCE and VC in groundwater are likely impacting surface water in the Sitcum Waterway.

5. REFERENCES

Environmental Associates, Inc. 2004a. Preliminary Subsurface Exploration, RevChem Plastics, Inc., 1132 Thorne Road, Tacoma, Washington. June 10.

_____, 2004b. Groundwater Plume Delineation, Revchem Plastics Facility, 1132 Thorne Road, Tacoma, Washington. July 23.

_____, 2005. Offsite Groundwater Plume Delineation, Former Automotive Tire Service Facility, 1132 Thorne Road, Tacoma, Washington. February 11.

Environmental Management Services, LLC. 2005. Groundwater Sampling Report. July 20.

Galster, R.W. and W.T. Laprade. 1991. *Geology of Seattle*, Washington, United States of America. Bulletin of the Association of Engineering Geologists Vol. XXVIII, No. 3: 235-302.

LSI Adapt. 2005. Supplemental Characterization, Groundwater Monitoring Well Installation and Groundwater Quality Monitoring Report, Former Automotive Tire Service Facility, 1132 Thorne Road, Tacoma, WA 98421. November 10.

Pacific Crest Environmental, LLC. 2006. *Focused Site Investigation Report, Shaub-Ellison Company, 1132 Thorne Road, Tacoma, Washington, Pacific Crest No. 105-001. June 13.*

Pacific Crest Environmental, LLC. 2009, Remedial Investigation Report, Former Sound Mattress and Felt Property, 1940 East 11th Street, Tacoma, Washington, Pacific Crest No. 105-001. December 9.

Puls, R.W. and M.J. Barcelona. 1996. Low-Flow (Minimal Drawdown) Ground-water Sampling Procedures, EPA/540/S-95/504.

Tacoma Public Library - Tacoma Pierce County Buildings Index – Building No. 1960 – 1940 East 11th Street - http://search.tacomapubliclibrary.org/buildings/bldg1up.asp?n=1960

Tacoma Public Library – Photograph Archive – Washington Steel Products - http://search.tpl.lib.wa.us/images/dt6n.asp

Serfes, M.E., 1991. Determining the Mean Hydraulic gradient of Ground Water Affected by Tidal Fluctuations, Ground Water, Vol. 29, July-August.

6. LIMITATIONS

The conclusions and recommendations contained in this report are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location and are subject to the following inherent limitations:

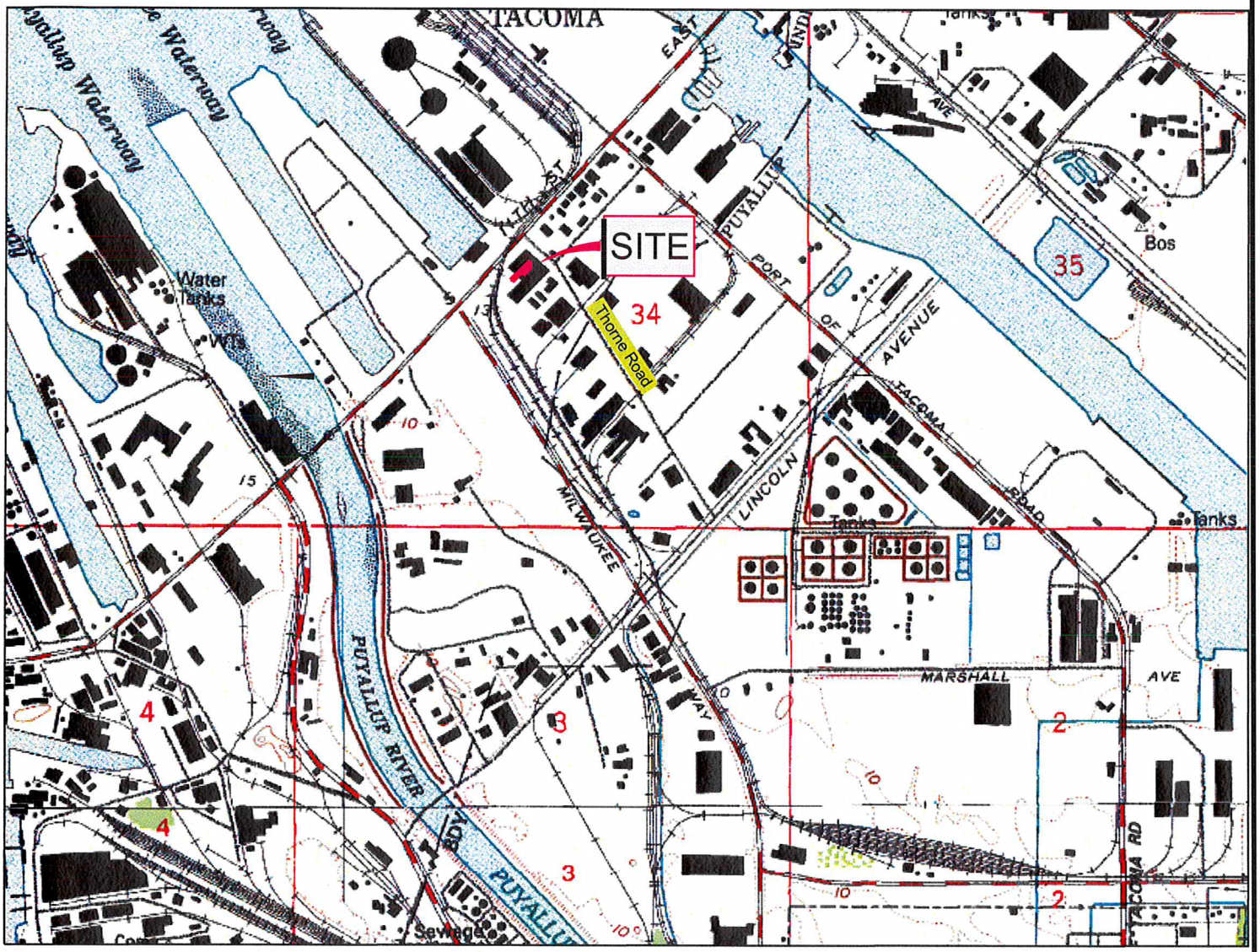
- **Accuracy of Information**. Certain information used by Pacific Crest in this report has been obtained, reviewed, and evaluated from various sources believed to be reliable. Although the conclusions, opinions, and recommendations are based in part on such information, Pacific Crest's services did not include the verification of its accuracy or authenticity. Should such information prove to be inaccurate or unreliable, Pacific Crest reserves the right to amend or revise its conclusions, opinions, and/or recommendations.

FIGURES

DATA GAP INVESTIGATION REPORT

Former Sound Mattress and Felt Property
1940 East 11th Street
Tacoma, Washington

Pacific Crest PN: 110-001



0 0.4 0.8

Approximate Scale in Miles

N

Figure 1

Site Location Map

Former Sound Mattress & Felt Company Property
1940 East 11th Street
Tacoma, Washington

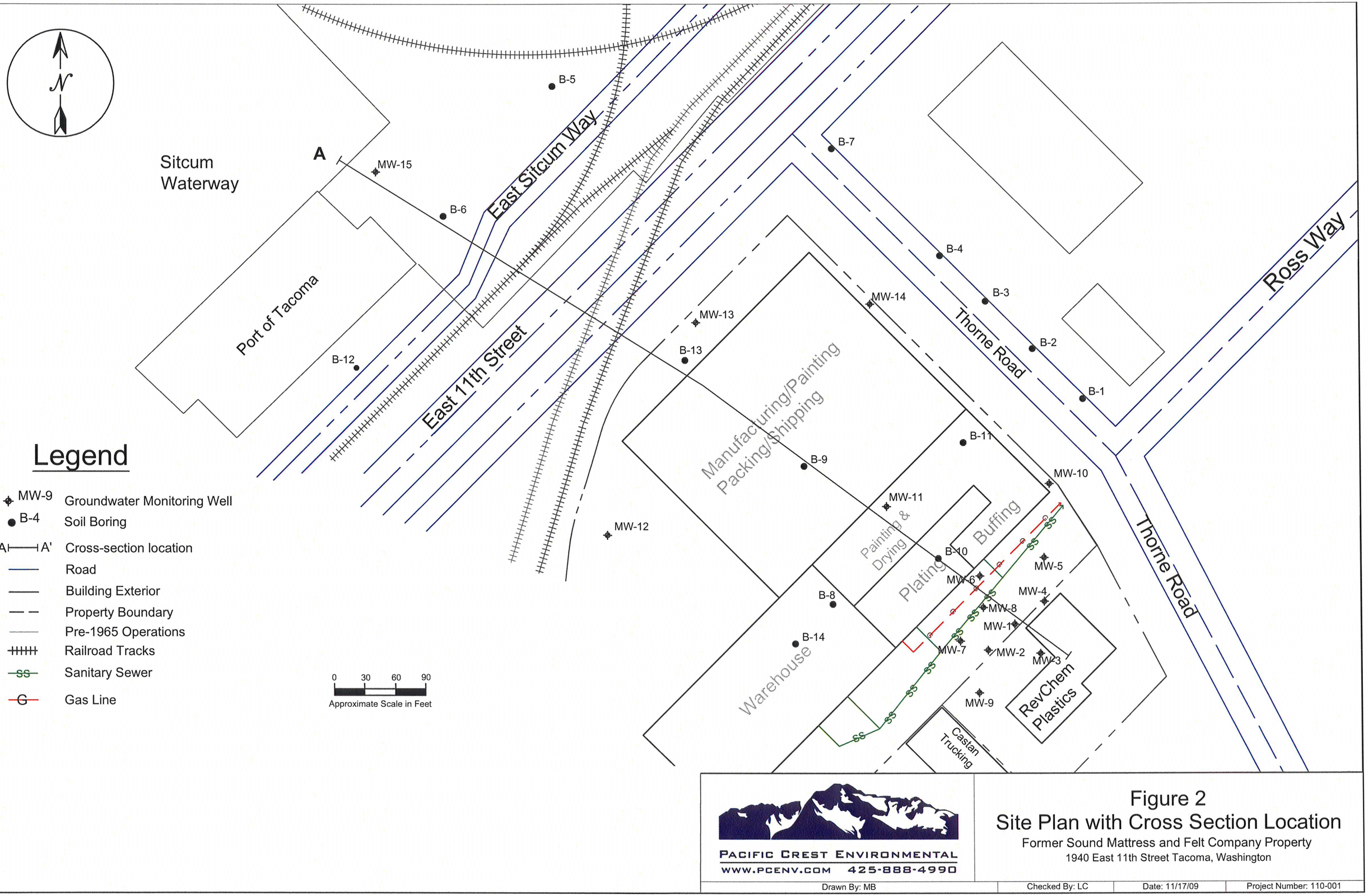
Project No: 110-001

DWN: AG

CKD: LC

DATE: 10/13/06

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

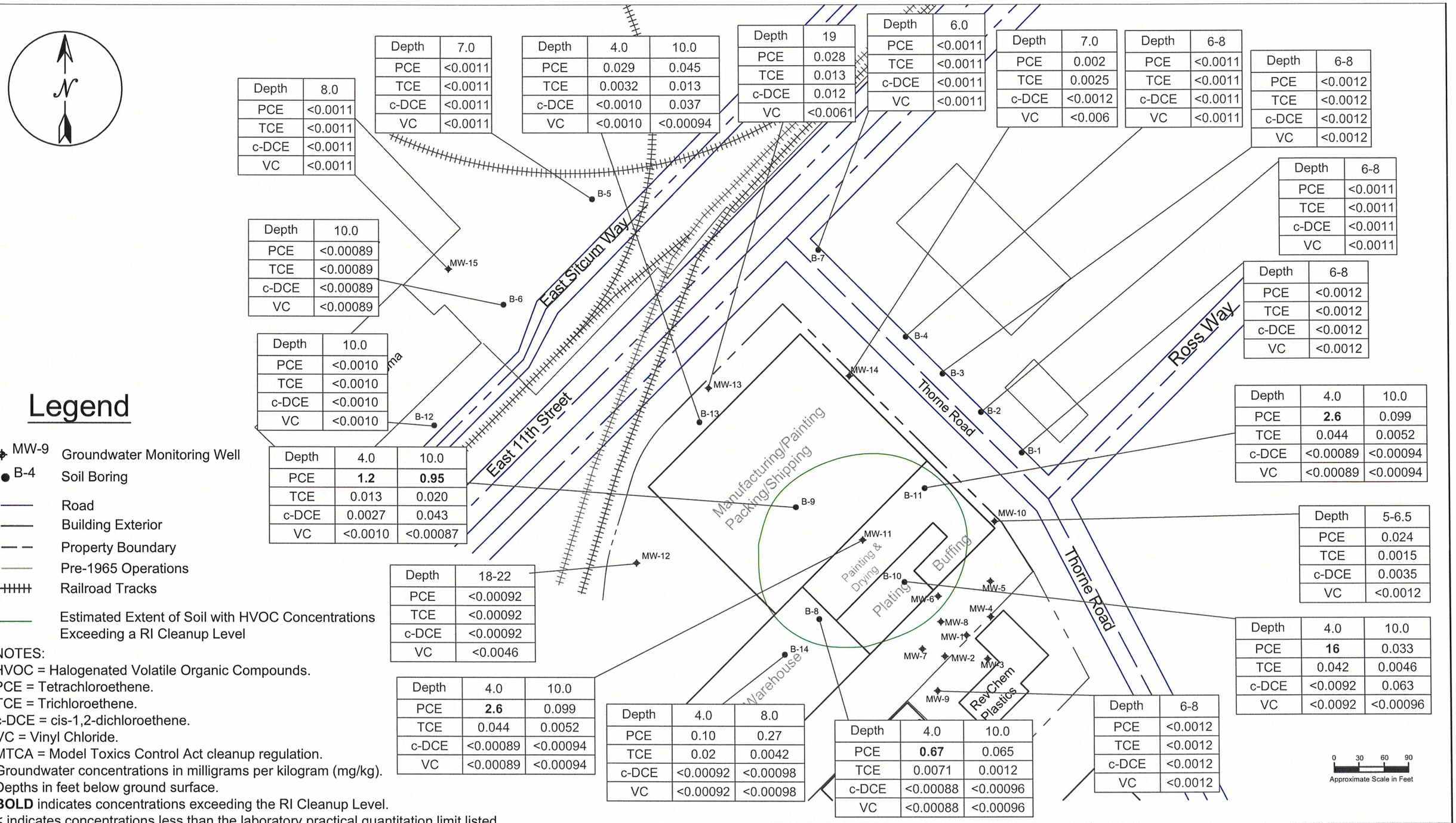


PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Figure 2
Site Plan with Cross Section Location

Former Sound Mattress and Felt Company Property
1940 East 11th Street Tacoma, Washington

Drawn By: MB	Checked By: LC	Date: 11/17/09	Project Number: 110-001



Depth	8.0
PCE	<0.0011
TCE	<0.0011
c-DCE	<0.0011
VC	<0.0011

Depth	7.0
PCE	<0.0011
TCE	<0.0011
c-DCE	<0.0011
VC	<0.0011

Depth	4.0	10.0
PCE	0.029	0.045
TCE	0.0032	0.013
c-DCE	<0.0010	0.037
VC	<0.0010	<0.00094

Depth	19
PCE	0.028
TCE	0.013
c-DCE	0.012
VC	<0.0061

Depth	6.0
PCE	<0.0011
TCE	<0.0011
c-DCE	<0.0011
VC	<0.0011

Depth	7.0
PCE	0.002
TCE	0.0025
c-DCE	<0.0012
VC	<0.006

Depth	6-8
PCE	<0.0011
TCE	<0.0011
c-DCE	<0.0011
VC	<0.0011

Depth	6-8
PCE	<0.0012
TCE	<0.0012
c-DCE	<0.0012
VC	<0.0012

Depth	6-8
PCE	<0.0011
TCE	<0.0011
c-DCE	<0.0011
VC	<0.0011

Depth	10.0
PCE	<0.00089
TCE	<0.00089
c-DCE	<0.00089
VC	<0.00089

Depth	6-8
PCE	<0.0012
TCE	<0.0012
c-DCE	<0.0012
VC	<0.0012

Depth	10.0
PCE	<0.0010
TCE	<0.0010
c-DCE	<0.0010
VC	<0.0010

Depth	4.0	10.0
PCE	**2.6**	0.099
TCE	0.044	0.0052
c-DCE	<0.00089	<0.00094
VC	<0.00089	<0.00094

Depth	4.0	10.0
PCE	**1.2**	**0.95**
TCE	0.013	0.020
c-DCE	0.0027	0.043
VC	<0.0010	<0.00087

Depth	5-6.5
PCE	0.024
TCE	0.0015
c-DCE	0.0035
VC	<0.0012

Depth	18-22
PCE	<0.00092
TCE	<0.00092
c-DCE	<0.00092
VC	<0.0046

Depth	4.0	10.0
PCE	**16**	0.033
TCE	0.042	0.0046
c-DCE	<0.0092	0.063
VC	<0.0092	<0.00096

Depth	4.0	10.0
PCE	**2.6**	0.099
TCE	0.044	0.0052
c-DCE	<0.00089	<0.00094
VC	<0.00089	<0.00094

Depth	4.0	8.0
PCE	0.10	0.27
TCE	0.02	0.0042
c-DCE	<0.00092	<0.00098
VC	<0.00092	<0.00098

Depth	4.0	10.0
PCE	**0.67**	0.065
TCE	0.0071	0.0012
c-DCE	<0.00088	<0.00096
VC	<0.00088	<0.00096

Depth	6-8
PCE	<0.0012
TCE	<0.0012
c-DCE	<0.0012
VC	<0.0012

Legend

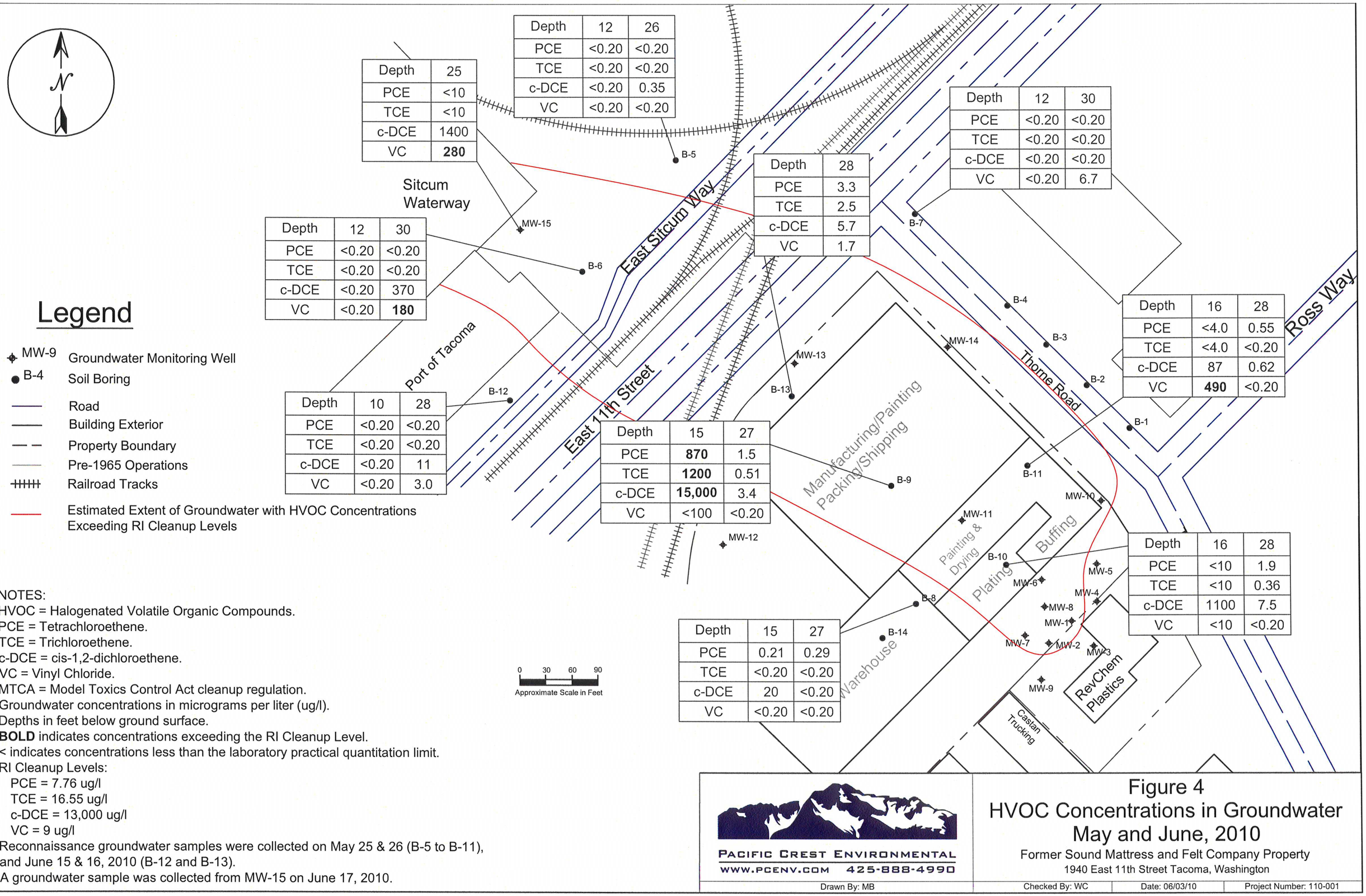
- MW-9 Groundwater Monitoring Well
- B-4 Soil Boring
- Road
- Building Exterior
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks
- Estimated Extent of Soil with HVOC Concentrations Exceeding a RI Cleanup Level

NOTES:
HVOC = Halogenated Volatile Organic Compounds.
PCE = Tetrachloroethene.
TCE = Trichloroethene.
c-DCE = cis-1,2-dichloroethene.
VC = Vinyl Chloride.
MTCA = Model Toxics Control Act cleanup regulation.
Groundwater concentrations in milligrams per kilogram (mg/kg).
Depths in feet below ground surface.
BOLD indicates concentrations exceeding the RI Cleanup Level.
< indicates concentrations less than the laboratory practical quantitation limit listed.
RI Cleanup Levels:
PCE = 0.334 mg/kg
TCE = 0.296 mg/kg
c-DCE = 65 mg/kg
VC = 0.057 mg/kg
Soil samples collected on 9/21/2005 (MW-9), 10/20/2006 (MW-10), 11/29/2007 (B-1 to B-4), 11/19/2008 (MW-11), 3/4 to 6/2009 (MW-12 to MW-14), 5/25 & 26/2010 (B-5 to B-11), 6/15 to 17/2010 (B-12 to B-14, & MW-15).

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Figure 3
HVOC Concentrations in Soil
Former Sound Mattress and Felt Company Property
1940 East 11th Street Tacoma, Washington

Drawn By: MB | Checked By: WC | Date: 06/03/10 | Project Number: 110-001



NOTES:
HVOC = Halogenated Volatile Organic Compounds.
PCE = Tetrachloroethene.
TCE = Trichloroethene.
c-DCE = cis-1,2-dichloroethene.
VC = Vinyl Chloride.
MTCA = Model Toxics Control Act cleanup regulation.
Groundwater concentrations in micrograms per liter (ug/l).
Depths in feet below ground surface.
BOLD indicates concentrations exceeding the RI Cleanup Level.
< indicates concentrations less than the laboratory practical quantitation limit.
RI Cleanup Levels:
PCE = 7.76 ug/l
TCE = 16.55 ug/l
c-DCE = 13,000 ug/l
VC = 9 ug/l
Reconnaissance groundwater samples were collected on May 25 & 26 (B-5 to B-11), and June 15 & 16, 2010 (B-12 and B-13).
A groundwater sample was collected from MW-15 on June 17, 2010.

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Figure 4
HVOC Concentrations in Groundwater May and June, 2010
Former Sound Mattress and Felt Company Property
1940 East 11th Street Tacoma, Washington

Drawn By: MB | Checked By: WC | Date: 06/03/10 | Project Number: 110-001

Legend

- MW-9 — Groundwater Monitoring Well
- B-4 — Soil Boring
- MW-15 — Groundwater Monitoring Well installed in June, 2010
- B-4 — Soil Boring advanced in May or June, 2010
- Road
- Building Exterior
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks

Sitcum Waterway

Port of Tacoma

East Sitcum Way

East 11th Street

Thorne Road

Ross Way

Thorne Road

Painting & Drying

Buffing

Plating

Machining/Painting/Shipping

RevChem Plastics

Castan Trucking

B-1 B-2 B-3 B-4 B-5 B-6 B-7 B-8 B-9 B-10 B-11 B-12 B-13 B-14

MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10 MW-11 MW-12 MW-13 MW-14 MW-15

PCE	**15**
TCE	**17**
c-DCE	35
VC	0.39

PCE	**9**
TCE	6.5
c-DCE	20
VC	**28**

PCE	<0.20
TCE	<0.20
c-DCE	<0.20
VC	<0.20

PCE	<0.20
TCE	<0.20
c-DCE	<0.20
VC	<0.20

PCE	<0.20
TCE	<0.20
c-DCE	<0.20
VC	<0.20

PCE	<0.20
TCE	<0.20
c-DCE	<0.20
VC	<0.20

PCE	2.7
TCE	2.3
c-DCE	58
VC	**21**

PCE	**2600**
TCE	**1400**
c-DCE	4800
VC	*<30*

PCE	3
TCE	0.46
c-DCE	<0.20
VC	<0.20

PCE	0.84
TCE	1.2
c-DCE	<0.20
VC	<0.20

PCE	**45**
TCE	6.5
c-DCE	91
VC	1.2

PCE	<0.20
TCE	0.3
c-DCE	24
VC	<0.20

PCE	**11**
TCE	2.1
c-DCE	0.35
VC	<0.20

PCE	**24**
TCE	11
c-DCE	8.4
VC	<0.20

PCE	0.91
TCE	0.31
c-DCE	<0.20
VC	<0.20

PCE	**30**
TCE	3.8
c-DCE	1.6
VC	<0.20

PCE	<0.20
TCE	<0.20
c-DCE	<0.20
VC	<0.20

0 30 60 90

Approximate Scale in Feet

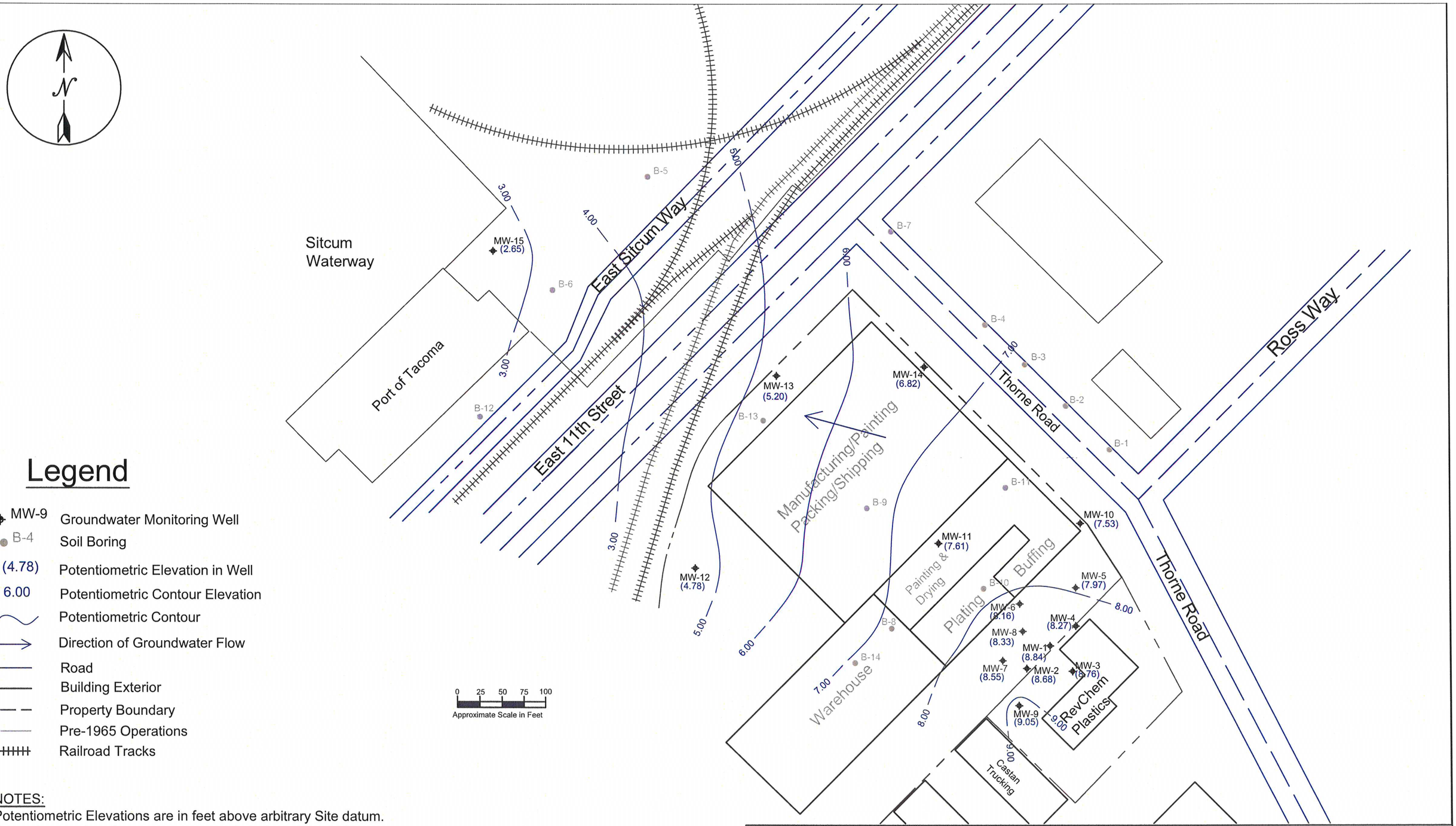
NOTES:
HVOC = Halogenated Volatile Organic Compounds.
PCE = Tetrachloroethene.
TCE = Trichloroethene.
c-DCE = cis-1,2-dichloroethene.
VC = Vinyl Chloride.
MTCA = Model Toxics Control Act cleanup regulation.
Groundwater concentrations in micrograms per liter (ug/l).
Depths in feet below ground surface.
BOLD indicates concentrations exceeding the RI Cleanup Level.
< indicates concentrations less than the laboratory practical quantitation limit.
RI Cleanup Levels:
PCE = 7.76 ug/l
TCE = 16.55 ug/l
c-DCE = 13,000 ug/l
VC = 9 ug/l
Reconnaissance groundwater samples collected on November 29, 2007 (B-1 to B-4).
Groundwater samples were collected from monitoring wells on March 10, 2009 (MW-12 to MW-14), and November 20, 21 & 24, 2008 (MW-1 to MW-11).

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Figure 5
HVOC Concentrations in Groundwater Prior to 2010

Former Sound Mattress and Felt Company Property
1940 East 11th Street Tacoma, Washington

Drawn By: MB	Checked By: WC	Date: 06/03/10	Project Number: 110-001



Legend

- MW-9 — Groundwater Monitoring Well
- B-4 — Soil Boring
- (4.78) — Potentiometric Elevation in Well
- 6.00 — Potentiometric Contour Elevation
- Potentiometric Contour
- Direction of Groundwater Flow
- Road
- Building Exterior
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks

NOTES:
Potentiometric Elevations are in feet above arbitrary Site datum.
Groundwater elevations were measured on June 17, 2010.
The Potentiometric elevation for MW-15 was calculated using a 25-hour mean depth to water for data collected using a data-logging pressure transducer on June 16 & 17, 2010.

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

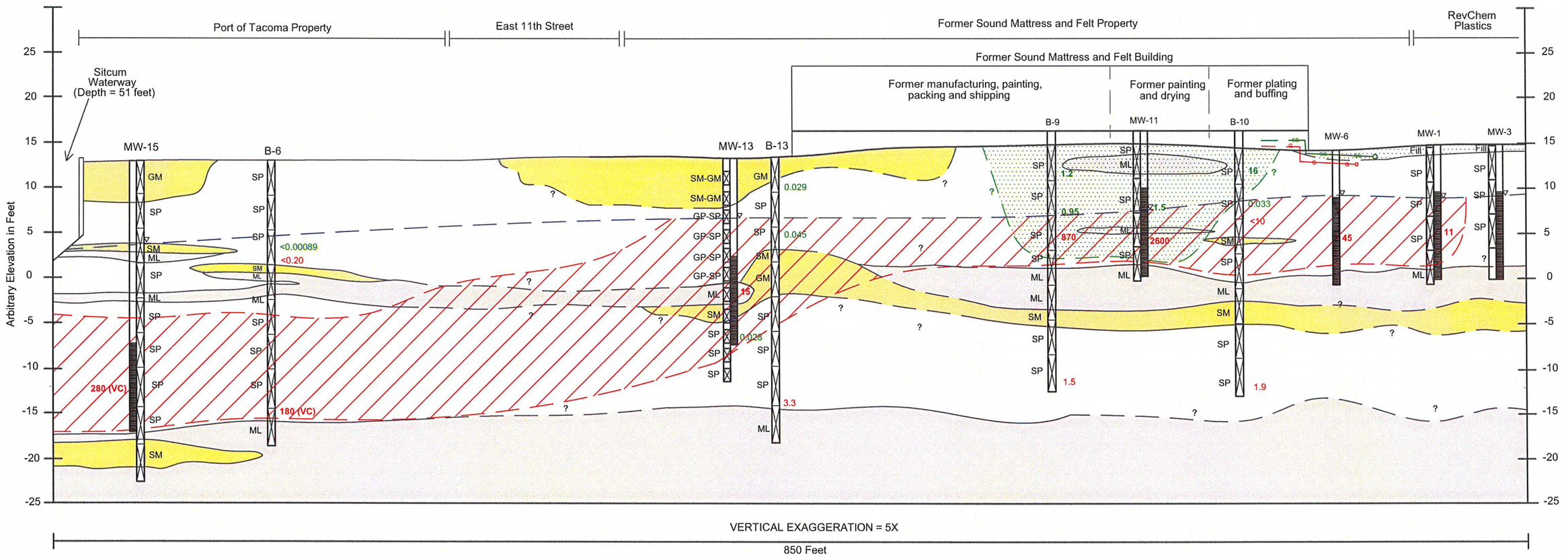
Figure 6
Groundwater Potentiometric Surface (June 17, 2010)

Former Sound Mattress and Felt Company Property
1940 East 11th Street Tacoma, Washington

Drawn By: MB	Checked By: WC	Date: 06/03/10	Project Number: 110-001

A
(NORTHWEST)

A'
(SOUTHEAST)



VERTICAL EXAGGERATION = 5X

850 Feet

LEGEND

Blank Well Casing

Potentiometric Elevation in Well

Soil Sample Interval

Screened Interval

FILL

SP, GP-SP = Sand, Gravel and Sand

SM, GM, SM-GM = Sand, Gravel or Sand and Gravel containing Silt

ML = Silt

Contact Between Sediment Types (Dashed Where Inferred)

Groundwater Potentiometric Surface (June 17, 2010)

SS Sanitary Sewer

G Gas Line

45 Concentration of PCE in Groundwater in µg/l (**Bold** indicates concentration exceeds RI Cleanup Level of 7.76 µg/l)

180 (VC) Concentration of VC in Groundwater in µg/l (**Bold** indicates concentration exceeds RI Cleanup Level of 9.0 µg/l)

1.5 Concentration of PCE in Soil in mg/kg (**Bold** indicates concentration exceeds RI Cleanup Level of 0.334 mg/kg)

Estimated Extent of Groundwater with Concentrations of Site COCs Greater Than the RI Cleanup Level

Estimated Extent of Soil with Concentrations of Site COCs Greater Than the RI Cleanup Level

Notes:

Concentrations of VC are displayed if they exceed the VC Cleanup Level of 9 µg/l and all other HVOC concentrations are below the respective RI Cleanup Levels.

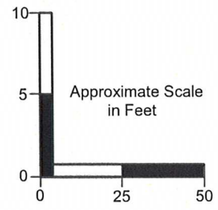
PCE = tetrachloroethylene.

VC = vinyl chloride.

µg/l = micrograms per liter.

mg/kg = milligrams per kilogram.

< indicates concentration is less than the laboratory practical quanitation limit displayed.



PACIFIC CREST ENVIRONMENTAL

WWW.PCENV.COM 425-888-4990

Figure 7
Cross Section A - A'

Former Sound Mattress and Felt Company Property

1940 East 11th Street Tacoma, Washington

Drawn By: MB	Checked By: WC	Date: 06/25/10	Project Number: 110-001

TABLES

DATA GAP INVESTIGATION REPORT

Former Sound Mattress and Felt Property
1940 East 11th Street
Tacoma, Washington

Pacific Crest PN: 110-001

Table 1
Soil Analytical Results Summary
Data Gap Investigation Report
Sound Mattress and Felt Company
Tacoma, Washington
Pacific Crest PN: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Sample Depth[2]	Soil Analytical Results (milligrams per kilogram)[1]				
					Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
B26	B26-1'-2'	EAI	5/14/2004	1-2	<0.05	<0.03	<0.05	<0.05	<0.5
B26	B26-5'-6'	EAI	5/14/2004	5-6	<0.05	<0.03	<0.05	<0.05	<0.5
SC-1	SC1-14.5	LSI	8/23/2005	14-14.5	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
SC-2	SC2-14.5	LSI	8/23/2005	14-14.5	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
SC-3	SC3-14.5	LSI	8/23/2005	14-14.5	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
SC-4	SC4-14.5	LSI	8/23/2005	14-14.5	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
MW-9	MW9/14.5	LSI	9/21/2005	14-14.5	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
MW-10	MW10-5-6.5	Pacific Crest	10/20/2006	5-6.5	0.024	0.0015	0.0035	<0.0012	<0.0012
B-1	B1-6-8	Pacific Crest	11/29/2007	6-8	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
B-2	B2-6-8	Pacific Crest	11/29/2007	6-8	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
B-3	B3-6-8	Pacific Crest	11/29/2007	6-8	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012
B-4	B4-6-8	Pacific Crest	11/29/2007	6-8	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
MW-11	MW11-8-10-111908	Pacific Crest	11/19/2008	8-10	**1.5**	0.013	<0.0013	<0.0013	<0.0066
MW-12	MW12-18-22	Pacific Crest	3/4/2009	18-22	<0.00092	<0.00092	<0.00092	<0.00092	<0.0046
MW-13	MW13-18-19	Pacific Crest	3/4/2009	18-19	0.028	0.013	0.012	<0.0012	<0.0061
MW-14	MW14-7	Pacific Crest	3/6/2009	7	0.002	0.0025	<0.0012	<0.0012	<0.006
B-5	B5-7.0	Pacific Crest	5/25/2010	7	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
B-6	B6-10.0	Pacific Crest	5/25/2010	10	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089
B-7	B7-6.0	Pacific Crest	5/25/2010	6	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
B-8	B8-4.0	Pacific Crest	5/26/2010	4	**0.67**	0.0071	<0.00088	<0.00088	<0.00088
	B8-10.0	Pacific Crest	5/26/2010	10	0.065	0.0012	<0.00096	<0.00096	<0.00096
B-9	B9-4.0	Pacific Crest	5/26/2010	4	**1.2**	0.013	0.0027	<0.0010	<0.0010
	B9-10.0	Pacific Crest	5/26/2010	10	**0.95**	0.020	0.043	<0.00087	<0.00087
B-10	B10-4.0	Pacific Crest	5/26/2010	4	**16**	0.042	<0.0092	<0.00092	<0.00096
	B10-10.0	Pacific Crest	5/26/2010	10	0.033	0.0046	0.063	0.0027	<0.00096
B-11	B11-4.0	Pacific Crest	5/26/2010	4	**2.6**	0.044	<0.00089	<0.00089	<0.00089
	B11-10.0	Pacific Crest	5/26/2010	10	0.099	0.0052	<0.00094	<0.00094	<0.00094
B-12	B12-4.0	Pacific Crest	6/16/2010	4	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
B-13	B13-4.0	Pacific Crest	6/16/2010	4	0.029	0.0032	<0.0010	<0.0010	<0.0010
	B13-10.0	Pacific Crest	6/16/2010	10	0.045	0.013	0.037	<0.00094	<0.00094
B-14	B14-4.0	Pacific Crest	6/16/2010	4	0.10	0.02	<0.00092	<0.00092	<0.00092
	B14-8.0	Pacific Crest	6/16/2010	8	0.027	0.0042	<0.00098	<0.00098	<0.00098
MW-15	B15-8.0	Pacific Crest	6/15/2010	8	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Preliminary Screening Levels[3]					**0.05**	**0.03**	**800**	**1,600**	**0.667**
RI Cleanup Levels for Soil[4]					**0.334**	**0.296**	**65**	**--**	**0.057**

NOTE:

[1]Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B.

[2] Depth in feet below ground surface.

[3] Method A or Method B Cleanup Levels Model Toxics Control Act Cleanup Regulation Chapter 173-340 of the Washington Administrative Code, as amended November 2007.

[4]Site Specific RI Cleanup Levels presented in RI Report dated December 9, 2009.

Soil Samples collected from borings MW-1 through MW-8 were not submitted for laboratory analysis.

Results in **BOLD** denote concentrations above Site Specific RI cleanup levels.

< denotes result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit.

- = not applicable

EAI = Environmental Associates, Inc.

LSI = LSI Adapt

Pacific Crest = Pacific Crest Environmental, LLC

Table 2
Groundwater Elevation Data Summary
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Well Identification	Date Gauged	Collected By	Top of Casing Elevation (feet)[1]	Total Well Depth (feet)[2]	Depth to Groundwater (feet)[2]	Potentiometric Surface (feet)
MW-1	7/12/2004	EAI	15.00	--	7.76	7.24
	1/27/2005	EAI	15.00	--	7.43	7.57
	7/7/2005	LSI	15.00	--	7.54	7.46
	9/27/2005	LSI	14.94[3]	--	8.13	6.81
	2/6/2007	Pacific Crest	14.94	14.60	6.44	8.50
	11/20/2008	Pacific Crest	14.94	--	7.71	7.23
	3/10/2009	Pacific Crest	14.94	--	7.09	7.85
	6/17/2010	Pacific Crest	14.94		6.46	8.48
MW-2	7/12/2004	EAI	13.88	--	6.48	7.40
	1/27/2005	EAI	13.88	--	6.11	7.77
	7/7/2005	LSI	13.88	--	6.22	7.66
	9/27/2005	LSI	13.88	--	6.96	6.92
	2/6/2007	Pacific Crest	13.88	14.68	5.15	8.73
	11/20/2008	Pacific Crest	13.88	--	6.45	7.43
	3/10/2009	Pacific Crest	13.88	--	5.82	8.06
	6/17/2010	Pacific Crest	13.88		5.20	8.68
MW-3	7/12/2004	EAI	14.93	--	7.46	7.47
	1/27/2005	EAI	14.93	--	7.11	7.82
	7/7/2005	LSI	14.93	--	7.22	7.71
	9/27/2005	LSI	14.93	--	7.95	6.98
	2/6/2007	Pacific Crest	14.93	14.92	6.17	8.76
	11/20/2008	Pacific Crest	14.93	--	7.45	7.48
	3/10/2009	Pacific Crest	14.93	--	6.80	8.13
	6/17/2010	Pacific Crest	14.93		6.17	8.76
MW-4	7/12/2004	EAI	15.10	--	7.99	7.11
	1/27/2005	EAI	15.10	--	7.68	7.42
	7/7/2005	LSI	15.10	--	7.80	7.30
	9/27/2005	LSI	15.10	--	8.40	6.70
	2/6/2007	Pacific Crest	15.10	14.85	6.81	8.29
	11/20/2008	Pacific Crest	15.10	--	8.02	7.08
	3/10/2009	Pacific Crest	15.10	--	7.43	7.67
	6/17/2010	Pacific Crest	15.10		6.83	8.27
MW-5	1/27/2005	EAI	13.33	--	6.06	7.27
	7/7/2005	LSI	13.33	--	6.21	7.12
	9/27/2005	LSI	13.33	--	NM	--
	2/6/2007	Pacific Crest	13.33	14.58	5.45	7.88
	11/20/2008	Pacific Crest	13.33	--	NM	--
	3/10/2009	Pacific Crest	13.33	--	NM	--
	6/17/2010	Pacific Crest	13.33		5.36	7.97
MW-6	1/27/2005	EAI	13.51	--	6.18	7.33
	7/7/2005	LSI	13.51	--	6.29	7.22
	9/27/2005	LSI	13.51	--	NM	--
	2/6/2007	Pacific Crest	13.51	14.03	5.35	8.16
	11/20/2008	Pacific Crest	13.51	--	6.43	7.08
	3/10/2009	Pacific Crest	13.51	--	5.90	7.61
	6/17/2010	Pacific Crest	13.51		5.35	8.16

Table 2
Groundwater Elevation Data Summary
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Well Identification	Date Gauged	Collected By	Top of Casing Elevation (feet)[1]	Total Well Depth (feet)[2]	Depth to Groundwater (feet)[2]	Potentiometric Surface (feet)
MW-7	1/27/2005	EAI	13.64	--	5.98	7.66
	7/7/2005	LSI	13.64	--	6.11	7.53
	9/27/2005	LSI	13.64	--	NM	--
	2/6/2007	Pacific Crest	13.64	14.59	5.05	8.59
	11/20/2008	Pacific Crest	13.64	--	6.23	7.41
	3/10/2009	Pacific Crest	13.64	--	4.62	9.02
	6/17/2010	Pacific Crest	13.64		5.09	8.55
MW-8	1/27/2005	EAI	13.68	--	6.18	7.50
	7/7/2005	LSI	13.68	--	6.27	7.41
	9/27/2005	LSI	13.68	--	NM	--
	2/6/2007	Pacific Crest	13.68	14.44	5.21	8.47
	11/20/2008	Pacific Crest	13.68	--	5.84	7.84
	3/10/2009	Pacific Crest	13.68	--	4.69	8.99
	6/17/2010	Pacific Crest	13.68		5.35	8.33
MW-9	9/27/2005	LSI	13.57	--	6.46	7.11
	2/6/2007	Pacific Crest	13.57	14.74	4.35	9.22
	11/20/2008	Pacific Crest	13.57	--	5.69	7.88
	3/10/2009	Pacific Crest	13.57	--	5.12	8.45
	6/17/2010	Pacific Crest	13.57		4.52	9.05
MW-10	2/6/2007	Pacific Crest	12.81	14.79	5.19	7.62
	11/20/2008	Pacific Crest	12.81	--	5.89	6.92
	3/10/2009	Pacific Crest	12.81	--	5.60	7.21
	6/17/2010	Pacific Crest	12.81		5.28	7.53
MW-11	11/20/2008	Pacific Crest	15.42	15.8	8.79	6.63
	3/10/2009	Pacific Crest	15.42	--	8.30	7.12
	6/17/2010	Pacific Crest	15.42		7.81	7.61
MW-12	3/10/2009	Pacific Crest	12.01	20	8.09	3.92
	6/17/2010	Pacific Crest	12.01		7.23	4.78
MW-13	3/10/2009	Pacific Crest	12.90	20	9.22	3.68
	6/17/2010	Pacific Crest	12.90		7.70	5.2
MW-14	3/10/2009	Pacific Crest	12.34	11	5.80	6.54
	6/17/2010	Pacific Crest	12.34		5.52	6.82
MW-15	6/15-6/16/2010[4]	Pacific Crest	12.76	30	10.11	2.65

NOTES

[1]Elevations are relative to an arbitrary Site benchmark
[2]Depth below top of well casing.
[3]MW-1 casing was repaired and resurveyed.
[4]Depth to groundwater was calculated by averaging depths to water measured using a data logging pressure transducer from June 15 to 16, 2010.
— = not available
NM = Not Measured
EAI = Environmental Associates, Inc.
LSI = LSI Adapt
Pacific Crest = Pacific Crest Environmental, LLC

Table 3
Groundwater Quality Parameters Summary
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Location ID	Sample ID	Measured By	Sample Date	Groundwater Quality Parameters				
				Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	Oxidation Reduction Potential (mV)
MW-1	MW-1	LSI	7/7/2005	17.6	-	1.73	7.37	-21.4
	MW-1	LSI	9/27/2005	18.2	-	-	7.36	-33.9
	MW1-020707[1]	Pacific Crest	2/7/2007	12.46	36.23	2.38	7.49	13.6
	MW1-112008[2]	Pacific Crest	11/20/2008	15.04	0.367	0.66	7.1	-151.2
MW-2	MW-2	LSI	7/7/2005	17.8	-	1.5	7.19	-11.2
	MW-2	LSI	9/27/2005	18.5	-	-	7.19	-24.2
	MW2-020707[1]	Pacific Crest	2/7/2007	12.4	29.09	2.52	7.25	53.9
	MW2-112008[2]	Pacific Crest	11/20/2008	14.88	0.287	0.99	6.82	-98.1
MW-3	MW-3	LSI	7/7/2005	16.7	-	1.54	7.12	-7.8
	MW3-020707[1]	Pacific Crest	2/7/2007	12.42	32.95	1.49	7.43	-40.6
	MW3-112108[2]	Pacific Crest	11/21/2008	15.25	0.341	0.17	7.25	-171.5
MW-4	MW-4	LSI	7/7/2005	15	-	1.53	7.25	-13.8
	MW4-020707[1]	Pacific Crest	2/7/2007	12.97	35.64	0.65	7.56	12.3
	MW4-112008[2]	Pacific Crest	11/20/2008	15.08	0.34	0.45	7.02	-153.2
MW-5	MW-5	LSI	7/7/2005	17.3	-	1.51	7.5	-28.9
	MW-5[3]	EMS	7/7/2005	17.1	-	1.48	7.53	-30.7
	MW5-020707[1]	Pacific Crest	2/7/2007	12.05	37.38	0.91	7.69	-71.4
	MW5-112108[2]	Pacific Crest	11/21/2008	14.38	0.391	5.43	7.88	-176.7
MW-6	MW-6	LSI	7/7/2005	17.2	-	1.21	7.68	-39.8
	MW-6[3]	EMS	7/7/2005	17.2	-	1.21	7.68	-39.8
	MW6-020707[1]	Pacific Crest	2/7/2007	12.09	33.79	0.51	7.77	-9.7
	MW6-112108[2]	Pacific Crest	11/21/2008	14.75	0.28	0.7	7.82	-138.4
MW-7	MW-7	LSI	7/7/2005	17.3	-	1.22	7.8	-45.6
	MW-7[3]	EMS	7/7/2005	17.3	-	1.22	7.8	-45.6
	MW7-020707[1]	Pacific Crest	2/7/2007	11.67	34.69	1.48	7.56	10.2
	MW7-112008[2]	Pacific Crest	11/20/2008	14.53	0.311	0.58	7.32	-121.3
MW-8	MW-8	LSI	7/7/2005	16.9	-	1.1	7.12	-7.7
	MW-8[3]	EMS	7/7/2005	16.9	-	1.1	7.12	-7.7
	MW8-020607[1]	Pacific Crest	2/6/2007	11.99	31.2	1.41	7.25	-89.8
	MW8-112408-B[2]	Pacific Crest	11/24/2008	14	0.391	1.35	7.24	-64.2
MW-9	MW-9	LSI	9/27/2005	17.5	--	-	6.92	-9.6
	MW9-112108	Pacific Crest	11/21/2008	14.63	0.26	0.35	6.77	-159.7
MW-10	MW10-020707[1]	Pacific Crest	2/7/2007	9.36	10.67	3.3	7.27	39.5
	MW10-112108[2]	Pacific Crest	11/21/2008	12.63	0.094	2.22	6.81	-69.1
MW-11	MW11-112108[2]	Pacific Crest	11/21/2008	12.9	0.457	0.2	7.12	-121.7
MW-12	MW12-031009[2]	Pacific Crest	3/10/2009	13.10	0.788	0.18	6.64	-75.3
MW-13	MW13-031009[2]	Pacific Crest	3/10/2009	11.05	3.478	0.72	6.19	113.4
MW-14	MW14-031009[2]	Pacific Crest	3/10/2009	8.50	0.750	3.46	7.44	36.9
B-5	B5-12-052510[2]	Pacific Crest	5/25/2010	14.45	38.345	0.57	7.24	-131.7
	B5-26-052510[2]	Pacific Crest	5/25/2010	14.24	24.411	0.35	7.78	-271.1
B-6	B6-12-052510[2]	Pacific Crest	5/25/2010	13.15	21.788	1.77	7.60	-56.4
	B6-30-052510[2]	Pacific Crest	5/25/2010	14.79	6.264	0.44	7.36	-200.0
B-7	B7-12-052510[2]	Pacific Crest	5/25/2010	13.51	4.676	0.66	7.35	26.8
	B7-30-052510[2]	Pacific Crest	5/25/2010	13.87	5.294	0.70	7.93	-105.6
B-8	B8-15-052610[2]	Pacific Crest	5/26/2010	13.30	0.343	0.59	8.14	-109.8
	B8-27-052610[2]	Pacific Crest	5/26/2010	13.83	1.951	0.46	8.16	-208.4
B-9	B9-15-052610[2]	Pacific Crest	5/26/2010	13.60	0.561	0.40	7.47	-108.5
	B9-27-052610[2]	Pacific Crest	5/26/2010	13.85	2.381	0.39	8.27	-200.4
B-10	B10-16-052610[2]	Pacific Crest	5/26/2010	13.45	0.408	0.71	7.73	-77.5
	B10-28-052610[2]	Pacific Crest	5/26/2010	13.78	2.941	0.57	7.98	-190.2
B-11	B11-16-052610[2]	Pacific Crest	5/26/2010	13.98	0.548	0.58	8.08	-62.0
	B11-28-052610[2]	Pacific Crest	5/26/2010	14.29	2.898	0.54	7.88	-191.9
B-12	B12-10-061610[2]	Pacific Crest	6/16/2010	13.61	0.643	1.86	7.13	-7.4
	B12-28-061610[2]	Pacific Crest	6/16/2010	13.99	1.024	0.56	7.35	-134.2
B-13	B13-28-061610[2]	Pacific Crest	6/16/2010	14.85	3.148	0.44	8.26	-177.9
MW-15	MW15-061710[2]	Pacific Crest	6/17/2010	13.10	5.083	0.48	7.22	-172.3

NOTE:
[1] Measurements by YSI 600 XL Water Analyzer
[2] Measurements by YSI 566 MPS
[3] Split samples collected by EMS
C = celsius
mS/cm = millisiemen per centimeter
mg/L = milligrams per liter
mV = millivolts

Table 4
Groundwater Analytical Results Summary
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Groundwater Analytical Results (micrograms per liter)									
				HVOCs[1]							MEE[2]		
				Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethane	Methylene Chloride	Methane	Ethane	Ethene
MW-1	MW-1	EAI	7/12/2004	4.1	<1.0	<1.0	<1.0	*<1.0*	-	-	-	-	-
	MW-1	EAI	1/24/2005	6.2	<1.0	<1.0	<1.0	*<5.0*	-	-	-	-	-
	MW-1	LSI	7/7/2005	**13**	0.69	<0.20	<0.20	<0.20	<0.20	<1.0	-	-	-
	MW-1	LSI	9/27/2005	**6.6**	0.48	<0.20	<0.20	<0.20	<0.20	<1.0	-	-	-
	MW1-020707	Pacific Crest	2/7/2007	**37**	1.2	<0.20	<0.20	<0.20	<0.20	<1.0	NA	NA	NA
	MW1-112008	Pacific Crest	11/20/2008	**11**	2.1	0.35	<0.20	<0.20	<0.20	<1.0	NA	NA	NA
MW-2	MW-2	EAI	7/12/2004	<1.0	<1.0	<1.0	<1.0	*<1.0*	-	-	-	-	-
	MW-2	EAI	1/24/2005	**9.9**	3.5	3.2	<1.0	*<5.0*	-	-	-	-	-
	MW-2	LSI	7/7/2005	**29**	4.5	1.3	0.26	<0.20	<0.20	<1.0	-	-	-
	MW-2	LSI	9/27/2005	**23**	4.2	2.4	0.58	<0.20	<0.20	<1.0	-	-	-
	MW2-020707	Pacific Crest	2/7/2007	**72**	4.4	0.75	<0.40	*<0.40*	<0.40	<2.0	NA	NA	NA
	MW2-112008	Pacific Crest	11/20/2008	**30**	3.8	1.6	0.33	<0.20	<0.20	<1.0	NA	NA	NA
MW-3	MW-3	EAI	7/12/2004	<1.0	<1.0	<1.0	<1.0	*<1.0*	-	-	-	-	-
	MW-3	EAI	1/24/2005	<1.0	<1.0	<1.0	<1.0	*<1.0*	-	-	-	-	-
	MW-3	LSI	7/7/2005	1.9	<0.20	<0.20	<0.20	<0.20	0.35	<1.0	-	-	-
	MW-3	LSI	9/27/2005	NA	NA	NA	NA	NA	-	-	-	-	-
	MW3-020707	Pacific Crest	2/7/2007	2.2	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	NA	NA	NA
	MW3-112108	Pacific Crest	11/21/2008	<0.20	<0.20	<0.20	<0.20	<0.20	0.45	<1.0	NA	NA	NA

Table 4
Groundwater Analytical Results Summary
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Groundwater Analytical Results (micrograms per liter)									
				HVOCs[1]							MEE[2]		
				Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethane	Methylene Chloride	Methane	Ethane	Ethene
MW-4	B25 (MW-4)	EAI	5/14/2004	1	ND	ND	ND	ND	-	-	-	-	-
	MW-4	EAI	1/24/2005	1.6	<1.0	<1.0	<1.0	*<5.0*	-	-	-	-	-
	MW-4	LSI	7/7/2005	2.7	<0.20	<0.20	<0.20	<0.20	<0.20	<1.0	-	-	-
	MW-4	LSI	9/27/2005	NA	NA	NA	NA	NA	-	-	-	-	-
	MW4-020707	Pacific Crest	2/7/2007	4.9	0.36	<0.20	<0.20	<0.20	0.2	1.1	NA	NA	NA
	MW4-112008	Pacific Crest	11/20/2008	0.84	1.2	<0.20	<0.20	<0.20	<0.20	<1.0	NA	NA	NA
MW-5	MW-5	EAI	1/27/2005	1.9	0.57	0.29	0.20	<0.20	-	-	-	-	-
	MW-5[3]	EMS	1/27/2005	1.8	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	-	-	-
	MW-5	LSI	7/7/2005	6.0	0.82	<0.20	<0.20	<0.20	<0.20	<1.0	-	-	-
	MW-5[3]	EMS	7/7/2005	5.9	1.0	<1.0	<1.0	<0.20	<1.0	<1.0	-	-	-
	MW-5	LSI	9/27/2005	NA	NA	NA	NA	NA	-	-	-	-	-
	MW5-020707	Pacific Crest	2/7/2007	**9.8**	1.6	0.22	<0.20	<0.20	<0.20	<1.0	2300	<500[4]	<500[4]
	MW5-112108	Pacific Crest	11/21/2008	3	0.46	<0.20	<0.20	<0.20	<0.20	<1.0	NA	NA	NA
MW-6	MW-6	EAI	1/27/2005	**53**	12	75	6.9	0.63	-	-	-	-	-
	MW-6	LSI	7/7/2005	**11**	2.3	91	9.1	1.3	<0.40	<2.0	-	-	-
	MW-6[3]	EMS	7/7/2005	**9.7**	2.8	64	5.7	0.48	-	-	-	-	-
	MW-6	LSI	9/27/2005	NA	NA	NA	NA	NA	-	-	-	-	-
	MW6-020707	Pacific Crest	2/7/2007	**67**	7.0	110	7.5	6.0	<1.0	<5.0	1800	<500[4]	<500[4]
	MW6-112108	Pacific Crest	11/21/2008	**45**	6.5	91	4.2	1.2	<0.40	<2.0	NA	NA	NA

Table 4
Groundwater Analytical Results Summary
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Groundwater Analytical Results (micrograms per liter)									
				HVOCs[1]							MEE[2]		
				Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethane	Methylene Chloride	Methane	Ethane	Ethene
MW-7	MW-7	EAI	1/27/2005	3.3	0.93	3.8	0.95	<0.20	-	-	-	-	-
	MW-7[3]	EMS	1/27/2005	2.7	<1.0	2.8	<1.0	<0.2	<1.0	<1.0	-	-	-
	MW-7	LSI	7/7/2005	**33**	3.1	2.8	0.96	<0.20	<0.20	<1.0	-	-	-
	MW-7[3]	EMS	7/7/2005	**27**	3.1	2.3	<1.0	<0.2	-	-	-	-	-
	MW-7	LSI	9/27/2005	NA	NA	NA	NA	NA	-	-	-	-	-
	MW7-020707	Pacific Crest	2/7/2007	**140**	12	3.3	<1.0	*<1.0*	<1.0	<5.0	360	<250[4]	<250[4]
	MW7-112008	Pacific Crest	11/20/2008	**24**	11	8.4	1.2	<0.20	<0.20	<1.0	NA	NA	NA
MW-8	MW-8	EAI	1/27/2005	**21**	3.9	15	1.8	<0.20	-	-	-	-	-
	MW-8	LSI	7/7/2005	**100**	6.6	10	1.4	<0.20	-	-	-	-	-
	MW-8[3]	EMS	7/7/2005	**79**	7.4	7.5	1.2	<0.2	-	-	-	-	-
	MW-8	LSI	9/27/2005	NA	NA	NA	NA	NA	-	-	-	-	-
	MW8-020607	Pacific Crest	2/6/2007	**83**	15	24	1.6	*<0.40*	<0.40	<2.0	910	<500[4]	<500[4]
	MW8-112408-B	Pacific Crest	11/24/2008	<0.20	0.3	24	2.1	<0.20	<0.20	<1.0	NA	NA	NA
MW-9	MW-9	LSI	9/27/2005	0.56	0.24	<0.20	<0.20	<0.20	<0.20	<1.0	-	-	-
	MW9-112108	Pacific Crest	11/21/2008	0.91	0.31	<0.20	<0.20	<0.20	<0.20	<1.0	NA	NA	NA
MW-10	MW10-020707	Pacific Crest	2/7/2007	**26**	2	19	0.23	3.3	<0.20	1.4	NA	NA	NA
	MW10-112108	Pacific Crest	11/21/2008	2.7	2.3	58	0.65	**21**	<0.40	<2.0	NA	NA	NA
MW-11	MW11-112108	Pacific Crest	11/21/2008	**2600**	**1400**	4800	<30[4]	*<30*[4]	<30[4]	*<150*[4]	NA	NA	NA

Table 4
Groundwater Analytical Results Summary
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Groundwater Analytical Results (micrograms per liter)									
				HVOCs[1]							MEE[2]		
				Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethane	Methylene Chloride	Methane	Ethane	Ethene
MW-12	MW12-031009	Pacific Crest	3/10/2009	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20	<1.0	NA	NA	NA
MW-13	MW13-031009	Pacific Crest	3/10/2009	**15**	**17**	35	0.21	0.39	<0.20	<1.0	NA	NA	NA
MW-14	MW14-031009	Pacific Crest	3/10/2009	**9**	6.5	20	0.54	**28**	<0.20	<1.0	NA	NA	NA
MW-15	MW15-061710	Pacific Crest	6/17/2010	<10	<10	1400	12	**280**	<10	<50	NA	NA	NA
Preliminary Screening Levels for Groundwater[5]				**5**	**5**	**80**	**60**	**0.2**	**800**	**5**	--	--	--
RI Cleanup Levels for Groundwater[6]				**7.76**	**16.55**	**13,000**	**--**	**9**	**--**	**--**	--	--	--

NOTES:

[1]Analyzed by United States Environmental Protection Agency (EPA) Method 8260B.

[2]Analyzed by United States EPA Method 8015M.

[3] Split samples collected by EMS

[4]Practical Quantitation Limit raised due to the necessary dilution of the sample.

[5] Method A or Method B Cleanup Levels in accordance with the Model Toxics Control Act Cleanup Regulation, Chapter 173-340 of the Washington Administrative Code, as amended

[6] Site Specific RI Cleanup Levels presented in RI Report dated December 9, 2009.

< denotes result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit.

ITALICS denotes Practical Quantitation Limit higher than applicable MTCA Cleanup level.

BOLD indicates concentrations exceeding applicable Site Specific RI Cleanup Levels

Table 5
Reconnaissance Groundwater Analytical Results Summary
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Pacific Crest No.: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Sample Depth [2]	Reconnaissance Groundwater Analytical Results (micrograms per liter)[1]							
					Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Chlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene
B2	B2	EAI	4/6/2004	9-12	**5**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B6	B6	EAI	4/6/2004	9-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B7	B7	EAI	4/6/2004	9-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B8	B8	EAI	4/6/2004	9-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B13	B13	EAI	4/7/2004	9-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B14	B14	EAI	4/7/2004	9-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B21	B21	EAI	5/14/2004	9-12	<1.0	<1.0	<1.0	<1.0	<0.2j	NA	NA	NA
B24	B24	EAI	5/14/2004	9-12	<1.0	<1.0	<1.0	<1.0	<0.2j	NA	NA	NA
B25	B25	EAI	5/14/2004	9-12	1	<1.0	<1.0	<1.0	<0.2j	NA	NA	NA
B26	B26	EAI	5/14/2004	9-12	<1.0	<1.0	<1.0	<1.0	<0.2j	NA	NA	NA
B27	B27	EAI	5/14/2004	9-12	**13**	<1.0	<1.0	<1.0	<0.2j	NA	NA	NA
B28	B28	EAI	5/14/2004	9-12	**20**	<1.0	<1.0	<1.0	<0.2j	NA	NA	NA
B30	B30	EAI	7/12/2004	9-12	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA	NA
B-33	B-33	EAI	1/24/2005	7-11	5.9	<1.0	4	1.3	<5.0	NA	NA	NA
B-34	B-34	EAI	1/24/2005	7-11	2.2	<1.0	<1.0	<1.0	<5.0	NA	NA	NA
B-35	B-35	EAI	1/24/2005	7-11	4.6	<1.0	11	<1.0	<5.0	NA	NA	NA
B-36	B-36	EAI	1/24/2005	7-11	**19**	2.3	17	2.6	<5.0	NA	NA	NA
B-37	B-37	EAI	1/24/2005	7-11	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA	NA
B-38	B-38	EAI	1/24/2005	7-11	1.1	<1.0	52	6.2	<5.0	NA	NA	NA
B-39	B-39	EAI	1/24/2005	7-11	4.8	1.4	170	14	<5.0	NA	NA	NA
B-40	B-40	EAI	1/24/2005	7-11	2.4	<1.0	43	2.9	<5.0	NA	NA	NA
SC-1	SC1-W	LSI	9/27/2005	11-14	0.26	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2
SC-2	SC2-W	LSI	9/27/2005	11-14	0.23	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2
SC-3	SC3-W	LSI	9/27/2005	11-13	<0.2	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2
SC-4	SC4-W	LSI	9/27/2005	10-13	0.26	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2
B-1	B1-RGW-12	Pacific Crest	11/29/2007	12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-2	B2-RGW-12	Pacific Crest	11/29/2007	12	<0.20	<0.20	<0.20	<0.20	<0.20	5.8	0.43	1.3
B-3	B3-RGW-12	Pacific Crest	11/29/2007	12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-4	B4-RGW-12	Pacific Crest	11/29/2007	12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-5	B5-12-052510	Pacific Crest	5/25/2010	8-12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	B5-26-052510	Pacific Crest	5/25/2010	22-26	<0.20	<0.20	0.35	<0.20	<0.20	<0.20	<0.20	<0.20
B-6	B6-12-052510	Pacific Crest	5/25/2010	8-12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	B6-30-052510	Pacific Crest	5/25/2010	26-30	<0.20	<0.20	370	9.4	**180**	<0.20	<0.20	<0.20
B-7	B7-12-052510	Pacific Crest	5/25/2010	8-12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	B7-30-052510	Pacific Crest	5/25/2010	26-30	<0.20	<0.20	<0.20	<0.20	6.7	<0.20	<0.20	<0.20
B-8	B8-15-052610	Pacific Crest	5/26/2010	11-15	0.21	<0.20	20	2.0	<0.20	<0.20	<0.20	<0.20
	B8-27-052610	Pacific Crest	5/26/2010	23-27	0.29	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-9	B9-15-052610	Pacific Crest	5/26/2010	11-15	**870**	**1200**	**15,000**	110	<100	<100	<100	<100
	B9-27-052610	Pacific Crest	5/26/2010	23-27	1.5	0.51	3.4	<2.0	<0.20	<0.20	<0.20	<0.20
B-10	B10-16-052610	Pacific Crest	5/26/2010	12-16	*<10*	<10	1100	15	*<10*	<10	<10	<10
	B10-28-052610	Pacific Crest	5/26/2010	24-28	1.9	0.36	7.5	<0.20	<0.20	<0.20	<0.20	<0.20
B-11	B11-16-052610	Pacific Crest	5/26/2010	12-16	<4.0	<4.0	87	15	**490**	<4.0	<4.0	<4.0
	B11-28-052610	Pacific Crest	5/26/2010	24-28	0.55	<0.20	0.62	<0.20	<0.20	<0.20	<0.20	<0.20
B-12	B12-10-061610	Pacific Crest	6/16/2010	7-10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	B12-28-061610	Pacific Crest	6/16/2010	25-28	<0.20	<0.20	11	2.1	3.0	<0.20	<0.20	<0.20
B-13	B13-28-061610	Pacific Crest	6/16/2010	25-28	3.3	2.5	5.7	<0.20	1.7	<0.20	<0.20	<0.20
Preliminary Screening Levels for Groundwater[3]					**5**	**5**	**80**	**160**	**0.2**	**160**	**1.8**	**720**
RI Cleanup Levels for Groundwater[4]					**7.76**	**16.55**	**13,000**	**--**	**9**	**--**	**--**	**--**

NOTE:

[1] Analyzed by United States Environmental Protection Agency (EPA) Method 8260B.

[2] Depth in feet below ground surface.

[3] Method A or Method B in accordance with the Model Toxics Control Act Cleanup Regulation, Chapter 173-340 of the Washington Administrative Code, as amended November

[4] Site Specific RI Cleanup Levels presented in RI Report dated December 9, 2009.

< denotes result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit.

- indicates not applicable

Italics indicates laboratory pracitcal quanitation limit is greater than RI cleanup level.

APPENDIX A
WELL AND BORING LOGS

DATA GAP INVESTIGATION REPORT

Former Sound Mattress and Felt Property
1940 East 11th Street
Tacoma, Washington

Pacific Crest PN: 110-001

Log of Boring B-5

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: Former Sound Mattress and Felt

Client: Robert Shea

Project Number: 110-001

Date/Time Started	: 5-25-10 / 10:29
Date/Time Completed	: 5-25-10 / 12:50
Total Boring Depth	: 28 ft
Depth to water ATD	: 7.5 ft
Elevation (ft)	: NA
Drilling Method	: Direct Push
Sampler Type	: Macro-Core

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 1.0 GRAVEL - FILL, dry, no odor.	GP				
		1.0 - 4.0 SAND (100% fine to medium sand), dark gray, dry, no odor.	SP		100	3.5	
5		4.0 - 7.5 SAND (100% fine to medium sand), dark gray, dry, no odor.	SP		100	5.8	B5-7.0
		7.5 - 8.0 SAND with silt(75% fine to medium sand, 25% silt), dark gray, moist to wet, no odor.	SM / SP				
10		8.0 - 9.0 SAND minor silt (90% fine to medium sand, 10% silt), dark gray, wet, no odor.	SP		100	6.9	B5-12-052510
		9.0 - 10.5 SAND trace silt (95% fine to coarse sand, 5% silt), dark gray, wet, no odor.	SM				
		10.5 - 12.0 Silty SAND (60% fine to coarse sand, 40% silt), dark gray, wet, no odor.	ML				
		12.0 - 14.0 Sandy SILT (60% silt, 40% fine to coarse sand), medium gray, wet, no odor.	ML		100	0.0	
15		14.0 - 15.0 SILT, medium gray, wet, no odor.					
		15.0 - 25.5 SAND (100% fine to coarse sand), dark gray, wet, no odor.	SP		100	0.1	
20					100	0.1	
25		25.5 - 28.0 SILT trace sand (95% silt, 5% fine sand), medium gray, moist, no odor.	ML		100	0.0	B5-26-052510
		28.0 Bottom of Boring					
30							

Drilling Company	: ESN
Drilling Foreman	: John
Equipment	: Strataprobe
Pacific Crest Rep.	: Monty Busbee

Log of Boring B-5

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\B-5.bor

Log of Boring B-6

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: Former Sound Mattress and Felt

Client: Robert Shea

Project Number: 110-001

Date/Time Started	: 5-25-10 / 12:50
Date/Time Completed	: 5-25-10 / 15:30
Total Boring Depth	: 32 ft
Depth to water ATD	: 10 ft
Elevation (ft)	: NA
Drilling Method	: Direct Push
Sampler Type	: Macro-Core

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 2.0 No Recovery					
		2.0 - 4.0 SAND (~100% fine to medium sand, <%5 shell fragments), dark gray, dry, no odor.	SP		80	4.8	
5		4.0 - 10.0 SAND (100% fine to medium sand), dark gray, dry, no odor.	SP		80	3.6	
10		10.0 -12.0 SAND (~100% fine to medium sand, <5% shell fragments), dark gray, wet, no odor.	SP		80	4.4	B6-10.0
		12.0 -13.0 SAND with silt (75% fine to medium sand, 25% silt), medium gray, wet, no odor.	SM				
		13.0 - 13.5 SILT, medium gray, moist, no odor.	ML				
15		13.5 - 14.0 SAND (100% fine to coarse sand), dark gray, wet, no odor.	SP		100	3.5	B6-12-052510
		14.0 - 15.5 SILT (100% silt), medium gray, moist, no odor.	ML				
		15.5 - 16.0 SAND trace silt (95% fine to coarse sand, 5% silt), dark gray, wet, no odor.	SP		100	11.3	
20		16.0 - 29.0 SAND (100% fine to coarse sand), dark gray, wet, no odor.	SP		100	10.3	
25					100	13.3	
30		29.0 - 30.0 SILT (100% silt), medium gray, moist, no odor.	ML		100	8.8	B6-30-052510
		30.0 - 32.0 SILT (100% silt), light brown, dense, dry, odor of decay.	ML				
		32.0 Bottom of Boring					
35							
40							

Drilling Company	: ESN
Drilling Foreman	: John
Equipment	: Strataprobe
Pacific Crest Rep.	: Monty Busbee

Log of Boring B-6

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\B-6.bor

Log of Boring B-7

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: Former Sound Mattress and Felt

Client: Robert Shea

Project Number: 110-001

Date/Time Started	: 5-25-10 / 15:54
Date/Time Completed	: 5-25-10 / 18:30
Total Boring Depth	: 32 ft
Depth to water ATD	: 7 ft
Elevation (ft)	: NA
Drilling Method	: Direct Push
Sampler Type	: Macro-Core

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 2.0 No Recovery					
		2.0 - 7.5 SAND (100% fine to medium sand), dark gray, dry, no odor.	SP		50	12.8	
5					80	14.1	B7-6.0
		7.5 - 8.0 GRAVEL with silt (75%% fine to medium gravel, 25% silt), orange, moist, no odor.	GM				
10		8.0 - 15.5 GRAVEL with sand, trace, silt (70% fine to medium gravel, 25% fine to medium sand, 5% silt), orange, wet, no odor.	GP		20	13.8	B7-12-052510
					15	7.0	
15		15.5 -16.0 SILT (100% silt), dark gray, moist, no odor.	ML				
		16.0 -20.0 SAND (100% fine to coarse sand), black, wet, odor of decay.	SP		70	3.3	
20		20.0 - 24.0 SAND (100% fine to coarse sand), black, wet, no odor.	SP		70	NM	
25		24.0 - 28.0 No Recovery			2	NM	
		28.0 - 31.25 SAND (100% fine to coarse sand), black, wet, no odor.	SP		70	NM	B7-30-052510
30		31.25 - 32.0 SILT with sand (75% silt, 25% fine sand), medium gray, moist, no odor.	ML				
		32.0 Bottom of Boring					
35							
40							

Drilling Company	: ESN
Drilling Foreman	: John
Equipment	: Strataprobe
Pacific Crest Rep.	: Monty Busbee

Log of Boring B-7

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\B-7.bor

Log of Boring B-8

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: Former Sound Mattress and Felt

Client: Robert Shea

Project Number: 110-001

Date/Time Started	: 5-26-10 / 8:20
Date/Time Completed	: 5-26-10 / 11:00
Total Boring Depth	: 27 ft
Depth to water ATD	: 11 ft
Elevation (ft)	: NA
Drilling Method	: Direct Push
Sampler Type	: Macro-Core

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Cnc				
		0.5 - 4.0 SAND trace silt (95% fine sand, 5% silt), dark gray, dry, no odor.	SP		10	7.4	B8-4.0
5		4.0 - 8.0 SAND trace silt, trace gravel (90% fine sand, 5% silt, 5% gravel), dark gray, dry, slight chemical odor.	SP		75	3.8	
		8.0 - 10.5 SAND (100% fine sand), dark gray, dry, no odor.	SP		90	1.5	B8-10.0
10		10.5 - 14.0 SAND (100% fine sand), dark gray, wet, no odor.	SP		90	1.2	B8-15-052610
		14.0 - 15.0 SILT trace sand (95% silt, 5% fine sand), dark gray, moist, no odor.	ML				
15		15.0 - 18.0 Sandy SILT (60% silt, 40% fine sand), dark gray, wet, slight chemical odor.	ML		80	4.1	
		18.0 - 19.0 SILT (100% silt), dark gray, wet, no odor.	ML				
20		19.0 - 23.0 SAND (100% fine to medium sand), black, moist, no odor.	SP		100	3.3	
		23.0 - 27.0 SAND (100% fine to medium sand), black, wet, no odor.	SP		100	NM	B8-27-052610
25		27.0 Bottom of Boring					
30							

Drilling Company	: ESN
Drilling Foreman	: John
Equipment	: Strataprobe
Pacific Crest Rep.	: Monty Busbee

Log of Boring B-8

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\B-8.bor

Log of Boring B-9

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: Former Sound Mattress and Felt

Client: Robert Shea

Project Number: 110-001

Date/Time Started	: 5-26-10 / 11:15
Date/Time Completed	: 5-26-10 / 13:30
Total Boring Depth	: 27 ft
Depth to water ATD	: 11 ft
Elevation (ft)	: NA
Drilling Method	: Direct Push
Sampler Type	: Macro-Core

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Cnc				
		0.5 - 1.0 GRAVEL - FILL, dry	GP				
		1.0 - 11.0 SAND (100% fine to medium sand), dark brown, dry, no odor.	SP		50	5.0	B9-4.0
5					70	6.1	
10					100	7.0	B9-10.0
		11.0 - 14.0 SAND (100% fine to medium sand), dark brown, wet, no odor.	SP		100	92.2	B9-15-052610
15		14.0 -14.5 Sandy SILT (60% silt, 40% fine to medium sand), dark gray, wet, no odor.	ML				
		14.5 - 17.0 SILT trace sand (95% silt, 5% fine to medium sand), dark gray, wet, no odor.	ML		80	2.8	
		17.0 - 18.0 Sandy SILT (60% silt, 40% fine sand), dark gray, wet, no odor.	ML				
		18.0 - 19.0 Silty SAND (60% fine sand, 40% silt), dark gray, wet, no odor.	SM				
		19.0 - 27.0 SAND (100% fine to medium sand), black, wet, no odor.	SP		90	2.7	
20							
25					70	1.5	B9-27-052610
		27.0 Bottom of Boring					
30							

Drilling Company	: ESN
Drilling Foreman	: John
Equipment	: Strataprobe
Pacific Crest Rep.	: Monty Busbee

Log of Boring B-9

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\B-9.bor

Log of Boring B-10

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: Former Sound Mattress and Felt

Client: Robert Shea

Project Number: 110-001

Date/Time Started	: 5-26-10 / 14:00
Date/Time Completed	: 5-26-10 / 15:50
Total Boring Depth	: 28 ft
Depth to water ATD	: 11 ft
Elevation (ft)	: NA
Drilling Method	: Direct Push
Sampler Type	: Macro-Core

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Cnc				
		0.5 - 3.0 GRAVEL - FILL, dry	GP		30	14.4	B10-4.0
		3.0 - 10.0 SAND trace silt (95% fine to medium sand, 5% silt), dark brown, dry, no odor.	SP		60	15.8	
10		10.0 - 12.0 SAND with silt (75% fine to medium sand, 25% silt), dark brown, moist to wet, slight chemical odor.	SM		100	10.5	B10-10.0
		12.0 - 15.0 SAND trace silt (95% fine to medium sand, 5% silt), dark brown, wet, no odor.	SP		90	9.4	B10-16-052610
15		15.0 - 16.0 SILT (100% silt), dark gray, moist, no odor.	ML				
		16.0 - 17.0 Sandy SILT (60% silt, 40% fine to medium sand), dark gray, wet, no odor.	ML				
		17.0 - 20.0 Silty SAND (60% fine to coarse sand, 40% silt), dark gray, wet, no odor.	SM		100	2.8	
20		20.0 - 28.0 SAND trace silt (95% fine to coarse sand, 5% silt), dark gray, wet, no odor.	SP		100	3.8	
25					80	3.1	B10-28-052610
30		28.0 Bottom of Boring					

Drilling Company	: ESN
Drilling Foreman	: John
Equipment	: Strataprobe
Pacific Crest Rep.	: Monty Busbee

Log of Boring B-10

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185AF\public\Project Files\1110 Sound Mattress & Felt Co\Boring Logs\B-10.bor

Log of Boring B-11

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: Former Sound Mattress and Felt

Client: Robert Shea

Project Number: 110-001

Date/Time Started	: 5-26-10 / 16:25
Date/Time Completed	: 5-26-10 / 18:06
Total Boring Depth	: 28 ft
Depth to water ATD	: 11 ft
Elevation (ft)	: NA
Drilling Method	: Direct Push
Sampler Type	: Macro-Core

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 1 Concrete	Cnc				
		1 - 1.5 GRAVEL - FILL, dry	GP				
		1.5 - 10.0 SAND trace silt (95% fine sand, 5% silt), medium brown, dry, no odor.	SP		50	15.2	B11-4.0
5					80	14.4	
10		10.0 - 11.0 SAND trace silt (95% fine to medium sand, 5% silt), dark brown, moist, no odor.	SP		60	7.0	B11-10.0
		11.0 - 12.0 SAND trace silt (95% fine to coarse sand, 5% silt), dark brown, wet, no odor.	SP				
		12.0 - 14.0 SAND trace silt (95% fine to coarse sand, 5% silt), dark brown, wet, no odor.	SP				
15		14.0 - 15.0 Silty SAND (60% fine to medium sand, 40% silt), dark brown, wet, no odor.	SM		80	13.4	B11-16-052610
		15.0 - 16.0 SILT (100% silt), dark gray, moist, no odor.	ML				
		16.0 - 19.0 Silty SAND (60% fine to coarse sand, 40% silt), dark brown, wet, no odor.	SM		80	3.0	
		19.0 - 20.0 Sandy SILT (60% silt, 40% fine to coarse sand), dark gray, wet, no odor.	ML				
20		20.0 - 28.0 SAND trace silt (95% fine to coarse sand, 5% silt), dark gray, wet, no odor.	SP		90	2.2	
25					75	1.9	B11-28-052610
		28.0 Bottom of Boring					
30							

Drilling Company	: ESN
Drilling Foreman	: John
Equipment	: Strataprobe
Pacific Crest Rep.	: Monty Busbee

Log of Boring B-11

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185A\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\B-11.bor

Log of Boring B-12

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: Former Sound Mattress and Felt

Client: Robert Shea

Project Number: 110-001

Date/Time Started	: 6-16-10 / 09:00
Date/Time Completed	: 6-16-10 / 11:00
Total Boring Depth	: 30 ft
Depth to water ATD	: 8 ft
Elevation (ft)	: NA
Drilling Method	: Direct Push
Sampler Type	: Macro-Core

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 5.0 SAND trace shell fragments (95% fine to medium sand, 5% shell fragments) dark brown, dry, no odor.	SP		HA	0.0	B12-2 (soil)
5		5.0 - 6.0 Not sampled					
		6.0 - 8.0 SAND trace shell fragments (95% fine to medium sand, 5% shell fragments) dark brown, dry, no odor.	SP		100	0.9	
		8.0 - 13.5 SAND trace shell fragments (95% fine to medium sand, 5% shell fragments) dark brown, wet, no odor.	SP		60	2.1	B12-10-061610
10		13.5 - 14.0 SILT (100% silt) medium gray, wet, no odor.	ML				
		14.0 - 16.0 SAND with shell fragments (95% fine to medium sand, 5% shell fragments) dark brown, wet, no odor.	SP		70	2.0	
15		16.0 - 18.0 Silty SAND (70% fine to medium sand, 30% silt) dark brown, wet, no odor.	SM				
		18.0 - 23.0 SAND (100% fine to coarse sand) dark brown, wet, no odor.	SW		80	3.0	
20		23.0 - 23.5 SILT (100% silt) dark gray, wet, no odor.	ML				
		23.5 - 28.5 SAND (100% fine to medium sand) dark brown, wet, no odor.	SP		90	4.3	
25					100	3.5	B12-28-061610
		28.5 - 30.0 SILT trace shell fragments (95% silt, 5% shell fragments) medium gray, moist, no odor.	ML				
30		30.0 Bottom of Boring					
35							

Drilling Company	: ESN
Drilling Foreman	: Noel Knopf
Equipment	: AMS 9630
Pacific Crest Rep.	: Monty Busbee

Log of Boring B-12

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\B-12.bor

Log of Boring B-13

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: Former Sound Mattress and Felt

Client: Robert Shea

Project Number: 110-001

Date/Time Started	: 6-16-10 / 11:25
Date/Time Completed	: 6-16-10 / 13:00
Total Boring Depth	: 32 ft
Depth to water ATD	: 10 ft
Elevation (ft)	: NA
Drilling Method	: Direct Push
Sampler Type	: Macro-Core

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 2.0 Silty GRAVEL trace sand (65% gravel, 30% silt, 5% fine sand) light brown, dry, no odor.	GM		95	14.1	B13-4 (soil)
		2.0 - 7.0 SAND (100% fine sand) light brown, dry, no odor.	SP				
5					90	23.7	
		7.0 - 9.5 SAND (100% fine sand) light brown, moist, slight odor.	SP				
10		9.5 - 11.0 SAND with silt (80% sand, 20% silt) dark brown, wet, slight odor.	SM		80	12.2	
		11.0 - 16.0 Silty GRAVEL with sand (50% fine gravel, 20% sand, 30% silt) light green, wet, no odor.	GM		35	13.7	
15		16.0 - 20 SAND trace silt (95% fine to coarse sand, 5% silt) dark brown, wet, no odor.	SW		55	132	
20		20.0 - 24.0 SAND (100% fine to medium sand) dark brown, wet, no odor.	SP		80	16.4	
25		24.0 - 28.0 SAND (100% fine to medium sand) dark brown, wet, slight odor.	SP		70	6.6	B13-28-061610 (gw)
		28.0 - 28.5 SAND (100% fine to medium sand) dark brown, wet, no odor.	SP				
30		28.5 - 32.0 SILT trace shell fragments (95% silt, 5% shell fragments) medium gray, wet to moist, no odor.	ML		90	9.6	
		32.0 Bottom of Boring					
35							

Drilling Company	: ESN
Drilling Foreman	: Noel Knopf
Equipment	: AMS 9630
Pacific Crest Rep.	: Monty Busbee

Log of Boring B-13

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\B-13.bor

Log of Boring B-14

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

Site Name: Former Sound Mattress and Felt

Client: Robert Shea

Project Number: 110-001

Date/Time Started : 6-16-10 / 13:15
Date/Time Completed : 6-16-10 / 14:15
Total Boring Depth : 12 ft
Depth to water ATD : 10 ft
Elevation (ft) : NA
Drilling Method : Direct Push
Sampler Type : Macro-Core

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete					
		0.5 - 1.0 GRAVEL (100% gravel) dry, no odor.	GP				
		1.0 - 3.5 SILT (100% silt) light brown, dry, no odor.	ML		90	36.1	B14-4
		3.5 - 8.0 SAND (100% fine to medium sand) ligth brown, dry, no odor.	SP		90	24.2	
5		8.0 - 9.0 Silty SAND (70% fine sand, 30% silt) light brown, dry, no odor.	SM				
		9.0 - 10.0 SAND (100% fine sand) dark brown, moist, no odor.	SP				
10		10.0 - 11.0 SAND (100% fine sand) dark brown, wet, no odor.	SP		95	11.5	B14-8
		11.0 - 12.0 SAND (100% fine to coarse sand) dark brown, wet, no odor.	SW				
		12.0 Bottom of Boring					
15							

Drilling Company : ESN
Drilling Foreman : Noel Knopf
Equipment : AMS 9630
Pacific Crest Rep. : Monty Busbee

Log of Boring B-14

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185AF\public\Project Files\1110 Sound Mattress & Felt Co\Boring Logs\B-14.bor

LOG OF WELL MW-15

(Page 1 of 1)

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

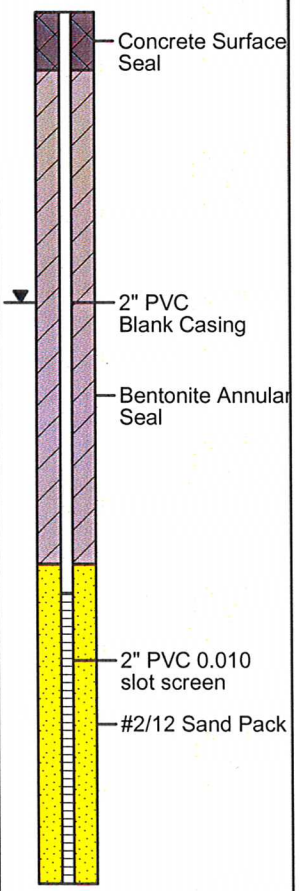
Site Name: Former Sound Mattress and Felt Company Property
Client: Mr. Robert Shea

Project #: 110-001

Date/Time Started	: 06-15-10 / 09:56
Date/Time Completed	: 06-15-10 / 16:00
Total Boring Depth	: 36
Total Well Depth	: 30
Depth to water ATD	: 9
Elevation (ft)	:
Drilling Method	: HSA
Sampler Type	: ~2 inch GP macro core
Drive Hammer (lbs)	: AMS DP hydraulic

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	Blow Count	PID (ppm)	Sample ID
0		0.0-0.5 Asphalt						
		0.0-5.0 GRAVEL with sand and silt (40% medium gravel, 30% fine to medium sand, 30% silt), moist, medium brown, no odor.	GM		100	-	-	-
5		5.0-9.0 SAND (100% fine to medium sand), medium brown, dry, no odor.	SP		100	-	20.5	MW15-8.0
		9.0-10.0 SAND (100% fine to medium sand), medium brown, wet, no odor.						
10		10.0-11.0 SAND with silt (75% fine to medium sand, 25% silt), medium brown, wet, slight chemical odor.	SP / SM		100	-	15.0	-
		11.0-12.0 SILT with sand (75% silt, 25% fine to medium sand), medium brown, wet, no odor.	ML					
		12.0-14.5 SAND (100% fine to coarse sand), medium brown, wet, no odor.	SP		100	-	18.7	-
15		14.5-15.5 SAND with silt (75% fine to medium sand, 25% silt), medium brown, wet, no odor.	SM / ML					
		15.5-16.0 SILT (100% silt), medium brown, moist, no odor.	SP		60	-	16.3	-
20		16.0-18.0 SAND trace silt (95% fine to medium sand, 5% sitl), medium brown, wet, no odor.						
		18.0-30.5 SAND (100% fine to coarse sand), medium brown, wet, no odor.	SP		75	-	32.6	-
25					75	-	19.4	-
		30.5-31.0 SILT (100% silt), medium gray, moist, no odor.						
30		31.0-31.5 SILT with sand (75% silt, 25% fine sand), medium gray, moist, no odor.	ML		70	-	4.7	-
		31.5-32.0 Silty SAND (60% fine to medium sand, 40% silt), medium gray, moist, no odor.	SM					
		32.0-35.0 SAND with silt (75% fine to coarse sand, 25% silt), dark gray, wet, no odor.	SM		90	-	7.8	-
35		35.0-36.0 SILT (100% silt), medium gray, moist, no odor.	ML					
		36.0 End of boring.						
40								

Well: MW-15



Drilling Company	: Environmental Services Network - Northwest
Drilling Foreman	: Noel Knopf
Equipment	: AMS 9630
Pacific Crest Rep.	: Monty Busbee

LOG OF WELL MW-15

(Page 1 of 1)

07-14-2010 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\MW-15.bor

APPENDIX B
LABORATORY ANALYTICAL REPORTS

DATA GAP INVESTIGATION REPORT

Former Sound Mattress and Felt Property
1940 East 11th Street
Tacoma, Washington

Pacific Crest PN: 110-001

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 2, 2010

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1005-206

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on May 27, 2010.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

Case Narrative

Samples were collected on May 25 and 26, 2010 and received by the laboratory on May 27, 2010. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Halogenated Volatiles (soil) EPA 8260B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

All four Internal Standards did not meet acceptance criteria for sample B7-6.0. The sample was re-analyzed with similar results. Leaks in the sealed VOA environment caused by grit between the VOA lip and VOA cap septum have been shown to cause low internal standard recovery. The sample was consequently extracted from the 4-ounce jar, analyzed and reported. Some loss of volatiles may have occurred.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-1-10
Date Analyzed:	6-1-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-206-01
Client ID:	**B5-12-052510**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-01
Client ID: B5-12-052510

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	98	71-126
Toluene-d8	92	76-116
4-Bromofluorobenzene	85	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-1-10
Date Analyzed:	6-1-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-206-02
Client ID:	**B5-26-052510**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	0.35		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-02
Client ID: B5-26-052510

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	90	71-126
Toluene-d8	87	76-116
4-Bromofluorobenzene	82	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-1-10
Date Analyzed:	6-1-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-206-03
Client ID:	**B6-12-052510**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-03
Client ID: B6-12-052510

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	92	71-126
Toluene-d8	87	76-116
4-Bromofluorobenzene	80	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 5-28-10
Date Analyzed: 5-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-206-04
Client ID: B6-30-052510

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		2.0
Chloromethane	ND		10
Vinyl Chloride	180		2.0
Bromomethane	ND		2.0
Chloroethane	ND		10
Trichlorofluoromethane	ND		2.0
1,1-Dichloroethene	ND		2.0
Iodomethane	ND		10
Methylene Chloride	ND		10
(trans) 1,2-Dichloroethene	9.4		2.0
1,1-Dichloroethane	ND		2.0
2,2-Dichloropropane	ND		2.0
(cis) 1,2-Dichloroethene	370		2.0
Bromochloromethane	ND		2.0
Chloroform	ND		2.0
1,1,1-Trichloroethane	ND		2.0
Carbon Tetrachloride	ND		2.0
1,1-Dichloropropene	ND		2.0
1,2-Dichloroethane	ND		2.0
Trichloroethene	ND		2.0
1,2-Dichloropropane	ND		2.0
Dibromomethane	ND		2.0
Bromodichloromethane	ND		2.0
2-Chloroethyl Vinyl Ether	ND		10
(cis) 1,3-Dichloropropene	ND		2.0
(trans) 1,3-Dichloropropene	ND		2.0

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-04
Client ID: B6-30-052510

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		2.0
Tetrachloroethene	ND		2.0
1,3-Dichloropropane	ND		2.0
Dibromochloromethane	ND		2.0
1,2-Dibromoethane	ND		2.0
Chlorobenzene	ND		2.0
1,1,1,2-Tetrachloroethane	ND		2.0
Bromoform	ND		10
Bromobenzene	ND		2.0
1,1,2,2-Tetrachloroethane	ND		2.0
1,2,3-Trichloropropane	ND		2.0
2-Chlorotoluene	ND		2.0
4-Chlorotoluene	ND		2.0
1,3-Dichlorobenzene	ND		2.0
1,4-Dichlorobenzene	ND		2.0
1,2-Dichlorobenzene	ND		2.0
1,2-Dibromo-3-chloropropane	ND		10
1,2,4-Trichlorobenzene	ND		2.0
Hexachlorobutadiene	ND		2.0
1,2,3-Trichlorobenzene	ND		2.0

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	71-126
Toluene-d8	89	76-116
4-Bromofluorobenzene	81	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-1-10
Date Analyzed:	6-1-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-206-05
Client ID:	**B7-12-052510**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-05
Client ID: B7-12-052510

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	71-126
Toluene-d8	87	76-116
4-Bromofluorobenzene	80	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-1-10
Date Analyzed:	6-1-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-206-06
Client ID:	**B7-30-052510**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	6.7		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-06
Client ID: B7-30-052510

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	102	71-126
Toluene-d8	92	76-116
4-Bromofluorobenzene	87	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-1-10
Date Analyzed:	6-1-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-206-07
Client ID:	**B8-15-052610**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	2.0		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	20		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-07
Client ID: B8-15-052610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	0.21		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	71-126
Toluene-d8	88	76-116
4-Bromofluorobenzene	81	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-28-10
Date Analyzed:	5-28-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-206-08
Client ID:	**B8-27-052610**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-08
Client ID: B8-27-052610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	0.29		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	93	71-126
Toluene-d8	92	76-116
4-Bromofluorobenzene	87	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 5-28-10
Date Analyzed: 5-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-206-09
Client ID: B9-15-052610

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		100
Chloromethane	ND		500
Vinyl Chloride	ND		100
Bromomethane	ND		100
Chloroethane	ND		500
Trichlorofluoromethane	ND		100
1,1-Dichloroethene	ND		100
Iodomethane	ND		500
Methylene Chloride	ND		500
(trans) 1,2-Dichloroethene	110		100
1,1-Dichloroethane	ND		100
2,2-Dichloropropane	ND		100
(cis) 1,2-Dichloroethene	15000		100
Bromochloromethane	ND		100
Chloroform	ND		100
1,1,1-Trichloroethane	ND		100
Carbon Tetrachloride	ND		100
1,1-Dichloropropene	ND		100
1,2-Dichloroethane	ND		100
Trichloroethene	1200		100
1,2-Dichloropropane	ND		100
Dibromomethane	ND		100
Bromodichloromethane	ND		100
2-Chloroethyl Vinyl Ether	ND		500
(cis) 1,3-Dichloropropene	ND		100
(trans) 1,3-Dichloropropene	ND		100

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-09
Client ID: B9-15-052610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		100
Tetrachloroethene	870		100
1,3-Dichloropropane	ND		100
Dibromochloromethane	ND		100
1,2-Dibromoethane	ND		100
Chlorobenzene	ND		100
1,1,1,2-Tetrachloroethane	ND		100
Bromoform	ND		500
Bromobenzene	ND		100
1,1,2,2-Tetrachloroethane	ND		100
1,2,3-Trichloropropane	ND		100
2-Chlorotoluene	ND		100
4-Chlorotoluene	ND		100
1,3-Dichlorobenzene	ND		100
1,4-Dichlorobenzene	ND		100
1,2-Dichlorobenzene	ND		100
1,2-Dibromo-3-chloropropane	ND		500
1,2,4-Trichlorobenzene	ND		100
Hexachlorobutadiene	ND		100
1,2,3-Trichlorobenzene	ND		100

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	92	71-126
Toluene-d8	93	76-116
4-Bromofluorobenzene	87	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-1-10
Date Analyzed:	6-1-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-206-10
Client ID:	**B9-27-052610**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	3.4		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	0.51		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-10
Client ID: B9-27-052610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	1.5		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	92	71-126
Toluene-d8	89	76-116
4-Bromofluorobenzene	81	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-28-10
Date Analyzed:	5-28-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	05-206-11
Client ID:	**B10-16-052610**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		10
Chloromethane	ND		50
Vinyl Chloride	ND		10
Bromomethane	ND		10
Chloroethane	ND		50
Trichlorofluoromethane	ND		10
1,1-Dichloroethene	ND		10
Iodomethane	ND		50
Methylene Chloride	ND		50
(trans) 1,2-Dichloroethene	15		10
1,1-Dichloroethane	ND		10
2,2-Dichloropropane	ND		10
(cis) 1,2-Dichloroethene	1100		10
Bromochloromethane	ND		10
Chloroform	ND		10
1,1,1-Trichloroethane	ND		10
Carbon Tetrachloride	ND		10
1,1-Dichloropropene	ND		10
1,2-Dichloroethane	ND		10
Trichloroethene	ND		10
1,2-Dichloropropane	ND		10
Dibromomethane	ND		10
Bromodichloromethane	ND		10
2-Chloroethyl Vinyl Ether	ND		50
(cis) 1,3-Dichloropropene	ND		10
(trans) 1,3-Dichloropropene	ND		10

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-11
Client ID: B10-16-052610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		10
Tetrachloroethene	ND		10
1,3-Dichloropropane	ND		10
Dibromochloromethane	ND		10
1,2-Dibromoethane	ND		10
Chlorobenzene	ND		10
1,1,1,2-Tetrachloroethane	ND		10
Bromoform	ND		50
Bromobenzene	ND		10
1,1,2,2-Tetrachloroethane	ND		10
1,2,3-Trichloropropane	ND		10
2-Chlorotoluene	ND		10
4-Chlorotoluene	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
1,2-Dibromo-3-chloropropane	ND		50
1,2,4-Trichlorobenzene	ND		10
Hexachlorobutadiene	ND		10
1,2,3-Trichlorobenzene	ND		10

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	71-126
Toluene-d8	91	76-116
4-Bromofluorobenzene	85	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 5-28-10
Date Analyzed: 5-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-206-12
Client ID: B10-28-052610

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	7.5		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	0.36		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-12
Client ID: B10-28-052610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	1.9		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	84	71-126
Toluene-d8	88	76-116
4-Bromofluorobenzene	81	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 5-28-10
Date Analyzed: 5-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-206-13
Client ID: B11-16-052610

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		4.0
Chloromethane	ND		20
Vinyl Chloride	490		4.0
Bromomethane	ND		4.0
Chloroethane	ND		20
Trichlorofluoromethane	ND		4.0
1,1-Dichloroethene	ND		4.0
Iodomethane	ND		20
Methylene Chloride	ND		20
(trans) 1,2-Dichloroethene	15		4.0
1,1-Dichloroethane	ND		4.0
2,2-Dichloropropane	ND		4.0
(cis) 1,2-Dichloroethene	87		4.0
Bromochloromethane	ND		4.0
Chloroform	ND		4.0
1,1,1-Trichloroethane	ND		4.0
Carbon Tetrachloride	ND		4.0
1,1-Dichloropropene	ND		4.0
1,2-Dichloroethane	ND		4.0
Trichloroethene	ND		4.0
1,2-Dichloropropane	ND		4.0
Dibromomethane	ND		4.0
Bromodichloromethane	ND		4.0
2-Chloroethyl Vinyl Ether	ND		20
(cis) 1,3-Dichloropropene	ND		4.0
(trans) 1,3-Dichloropropene	ND		4.0

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-13
Client ID: B11-16-052610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		4.0
Tetrachloroethene	ND		4.0
1,3-Dichloropropane	ND		4.0
Dibromochloromethane	ND		4.0
1,2-Dibromoethane	ND		4.0
Chlorobenzene	ND		4.0
1,1,1,2-Tetrachloroethane	ND		4.0
Bromoform	ND		20
Bromobenzene	ND		4.0
1,1,2,2-Tetrachloroethane	ND		4.0
1,2,3-Trichloropropane	ND		4.0
2-Chlorotoluene	ND		4.0
4-Chlorotoluene	ND		4.0
1,3-Dichlorobenzene	ND		4.0
1,4-Dichlorobenzene	ND		4.0
1,2-Dichlorobenzene	ND		4.0
1,2-Dibromo-3-chloropropane	ND		20
1,2,4-Trichlorobenzene	ND		4.0
Hexachlorobutadiene	ND		4.0
1,2,3-Trichlorobenzene	ND		4.0

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	84	71-126
Toluene-d8	87	76-116
4-Bromofluorobenzene	83	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 5-28-10
Date Analyzed: 5-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: 05-206-14
Client ID: B11-28-052610

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	0.62		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-14
Client ID: B11-28-052610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	0.55		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	93	71-126
Toluene-d8	92	76-116
4-Bromofluorobenzene	88	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Date Extracted: 5-28-10
Date Analyzed: 5-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0528W1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Lab ID: MB0528W1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	85	71-126
Toluene-d8	90	76-116
4-Bromofluorobenzene	82	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Date Extracted: 6-1-10
Date Analyzed: 6-1-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0601W1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Lab ID: MB0601W1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	71-126
Toluene-d8	88	76-116
4-Bromofluorobenzene	76	70-123

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 5-28-10
Date Analyzed: 5-28-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0528W1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	10.0	11.7	117	11.3	113	70-130	
Benzene	10.0	10.7	107	10.4	104	73-130	
Trichloroethene	10.0	10.5	105	10.3	103	79-122	
Toluene	10.0	10.5	105	10.2	102	80-121	
Chlorobenzene	10.0	10.9	109	10.2	102	83-116	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	4	15	
Benzene	2	14	
Trichloroethene	2	14	
Toluene	3	13	
Chlorobenzene	7	13	

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 6-1-10
Date Analyzed: 6-1-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0601W1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	10.0	11.8	118	11.5	115	70-130	
Benzene	10.0	10.4	104	10.8	108	73-130	
Trichloroethene	10.0	10.3	103	10.2	102	79-122	
Toluene	10.0	10.3	103	10.3	103	80-121	
Chlorobenzene	10.0	10.6	106	10.4	104	83-116	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	2	15	
Benzene	4	14	
Trichloroethene	0	14	
Toluene	0	13	
Chlorobenzene	1	13	

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-28-10
Date Analyzed:	5-28-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	05-206-15
Client ID:	**B5-7.0**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.0011
Chloromethane	ND		0.0056
Vinyl Chloride	ND		0.0011
Bromomethane	ND		0.0011
Chloroethane	ND		0.0056
Trichlorofluoromethane	ND		0.0011
1,1-Dichloroethene	ND		0.0011
Iodomethane	ND		0.0056
Methylene Chloride	ND		0.0056
(trans) 1,2-Dichloroethene	ND		0.0011
1,1-Dichloroethane	ND		0.0011
2,2-Dichloropropane	ND		0.0011
(cis) 1,2-Dichloroethene	ND		0.0011
Bromochloromethane	ND		0.0011
Chloroform	ND		0.0011
1,1,1-Trichloroethane	ND		0.0011
Carbon Tetrachloride	ND		0.0011
1,1-Dichloropropene	ND		0.0011
1,2-Dichloroethane	ND		0.0011
Trichloroethene	ND		0.0011
1,2-Dichloropropane	ND		0.0011
Dibromomethane	ND		0.0011
Bromodichloromethane	ND		0.0011
2-Chloroethyl Vinyl Ether	ND		0.0056
(cis) 1,3-Dichloropropene	ND		0.0011
(trans) 1,3-Dichloropropene	ND		0.0011

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-15
Client ID: B5-7.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0011
Tetrachloroethene	ND		0.0011
1,3-Dichloropropane	ND		0.0011
Dibromochloromethane	ND		0.0011
1,2-Dibromoethane	ND		0.0011
Chlorobenzene	ND		0.0011
1,1,1,2-Tetrachloroethane	ND		0.0011
Bromoform	ND		0.0011
Bromobenzene	ND		0.0011
1,1,2,2-Tetrachloroethane	ND		0.0011
1,2,3-Trichloropropane	ND		0.0011
2-Chlorotoluene	ND		0.0011
4-Chlorotoluene	ND		0.0011
1,3-Dichlorobenzene	ND		0.0011
1,4-Dichlorobenzene	ND		0.0011
1,2-Dichlorobenzene	ND		0.0011
1,2-Dibromo-3-chloropropane	ND		0.0056
1,2,4-Trichlorobenzene	ND		0.0011
Hexachlorobutadiene	ND		0.0056
1,2,3-Trichlorobenzene	ND		0.0011

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	100	66-128
Toluene-d8	111	68-126
4-Bromofluorobenzene	106	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-28-10
Date Analyzed:	5-28-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	05-206-16
Client ID:	**B6-10.0**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.00089
Chloromethane	ND		0.0044
Vinyl Chloride	ND		0.00089
Bromomethane	ND		0.00089
Chloroethane	ND		0.0044
Trichlorofluoromethane	ND		0.00089
1,1-Dichloroethene	ND		0.00089
Iodomethane	ND		0.0044
Methylene Chloride	ND		0.0044
(trans) 1,2-Dichloroethene	ND		0.00089
1,1-Dichloroethane	ND		0.00089
2,2-Dichloropropane	ND		0.00089
(cis) 1,2-Dichloroethene	ND		0.00089
Bromochloromethane	ND		0.00089
Chloroform	ND		0.00089
1,1,1-Trichloroethane	ND		0.00089
Carbon Tetrachloride	ND		0.00089
1,1-Dichloropropene	ND		0.00089
1,2-Dichloroethane	ND		0.00089
Trichloroethene	ND		0.00089
1,2-Dichloropropane	ND		0.00089
Dibromomethane	ND		0.00089
Bromodichloromethane	ND		0.00089
2-Chloroethyl Vinyl Ether	ND		0.0044
(cis) 1,3-Dichloropropene	ND		0.00089
(trans) 1,3-Dichloropropene	ND		0.00089

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-16
Client ID: B6-10.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00089
Tetrachloroethene	ND		0.00089
1,3-Dichloropropane	ND		0.00089
Dibromochloromethane	ND		0.00089
1,2-Dibromoethane	ND		0.00089
Chlorobenzene	ND		0.00089
1,1,1,2-Tetrachloroethane	ND		0.00089
Bromoform	ND		0.00089
Bromobenzene	ND		0.00089
1,1,2,2-Tetrachloroethane	ND		0.00089
1,2,3-Trichloropropane	ND		0.00089
2-Chlorotoluene	ND		0.00089
4-Chlorotoluene	ND		0.00089
1,3-Dichlorobenzene	ND		0.00089
1,4-Dichlorobenzene	ND		0.00089
1,2-Dichlorobenzene	ND		0.00089
1,2-Dibromo-3-chloropropane	ND		0.0044
1,2,4-Trichlorobenzene	ND		0.00089
Hexachlorobutadiene	ND		0.0044
1,2,3-Trichlorobenzene	ND		0.00089

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	106	66-128
Toluene-d8	110	68-126
4-Bromofluorobenzene	99	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 6-1-10
Date Analyzed: 6-1-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 05-206-17
Client ID: B7-6.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0011
Chloromethane	ND		0.0057
Vinyl Chloride	ND		0.0011
Bromomethane	ND		0.0011
Chloroethane	ND		0.0057
Trichlorofluoromethane	ND		0.0011
1,1-Dichloroethene	ND		0.0011
Iodomethane	ND		0.0057
Methylene Chloride	ND		0.0057
(trans) 1,2-Dichloroethene	ND		0.0011
1,1-Dichloroethane	ND		0.0011
2,2-Dichloropropane	ND		0.0011
(cis) 1,2-Dichloroethene	ND		0.0011
Bromochloromethane	ND		0.0011
Chloroform	ND		0.0011
1,1,1-Trichloroethane	ND		0.0011
Carbon Tetrachloride	ND		0.0011
1,1-Dichloropropene	ND		0.0011
1,2-Dichloroethane	ND		0.0011
Trichloroethene	ND		0.0011
1,2-Dichloropropane	ND		0.0011
Dibromomethane	ND		0.0011
Bromodichloromethane	ND		0.0011
2-Chloroethyl Vinyl Ether	ND		0.0057
(cis) 1,3-Dichloropropene	ND		0.0011
(trans) 1,3-Dichloropropene	ND		0.0011

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-17
Client ID: B7-6.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0011
Tetrachloroethene	ND		0.0011
1,3-Dichloropropane	ND		0.0011
Dibromochloromethane	ND		0.0011
1,2-Dibromoethane	ND		0.0011
Chlorobenzene	ND		0.0011
1,1,1,2-Tetrachloroethane	ND		0.0011
Bromoform	ND		0.0011
Bromobenzene	ND		0.0011
1,1,2,2-Tetrachloroethane	ND		0.0011
1,2,3-Trichloropropane	ND		0.0011
2-Chlorotoluene	ND		0.0011
4-Chlorotoluene	ND		0.0011
1,3-Dichlorobenzene	ND		0.0011
1,4-Dichlorobenzene	ND		0.0011
1,2-Dichlorobenzene	ND		0.0011
1,2-Dibromo-3-chloropropane	ND		0.0057
1,2,4-Trichlorobenzene	ND		0.0011
Hexachlorobutadiene	ND		0.0057
1,2,3-Trichlorobenzene	ND		0.0011

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	111	66-128
Toluene-d8	110	68-126
4-Bromofluorobenzene	108	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-28&6-1-10
Date Analyzed:	5-28&6-1-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	05-206-18
Client ID:	**B8-4.0**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.00088
Chloromethane	ND		0.0044
Vinyl Chloride	ND		0.00088
Bromomethane	ND		0.00088
Chloroethane	ND		0.0044
Trichlorofluoromethane	ND		0.00088
1,1-Dichloroethene	ND		0.00088
Iodomethane	ND		0.0044
Methylene Chloride	ND		0.0044
(trans) 1,2-Dichloroethene	ND		0.00088
1,1-Dichloroethane	ND		0.00088
2,2-Dichloropropane	ND		0.00088
(cis) 1,2-Dichloroethene	ND		0.00088
Bromochloromethane	ND		0.00088
Chloroform	ND		0.00088
1,1,1-Trichloroethane	ND		0.00088
Carbon Tetrachloride	ND		0.00088
1,1-Dichloropropene	ND		0.00088
1,2-Dichloroethane	ND		0.00088
Trichloroethene	0.0071		0.00088
1,2-Dichloropropane	ND		0.00088
Dibromomethane	ND		0.00088
Bromodichloromethane	ND		0.00088
2-Chloroethyl Vinyl Ether	ND		0.0044
(cis) 1,3-Dichloropropene	ND		0.00088
(trans) 1,3-Dichloropropene	ND		0.00088

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-18
Client ID: B8-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00088
Tetrachloroethene	0.67		0.053
1,3-Dichloropropane	ND		0.00088
Dibromochloromethane	ND		0.00088
1,2-Dibromoethane	ND		0.00088
Chlorobenzene	ND		0.00088
1,1,1,2-Tetrachloroethane	ND		0.00088
Bromoform	ND		0.00088
Bromobenzene	ND		0.00088
1,1,2,2-Tetrachloroethane	ND		0.00088
1,2,3-Trichloropropane	ND		0.00088
2-Chlorotoluene	ND		0.00088
4-Chlorotoluene	ND		0.00088
1,3-Dichlorobenzene	ND		0.00088
1,4-Dichlorobenzene	ND		0.00088
1,2-Dichlorobenzene	ND		0.00088
1,2-Dibromo-3-chloropropane	ND		0.0044
1,2,4-Trichlorobenzene	ND		0.00088
Hexachlorobutadiene	ND		0.0044
1,2,3-Trichlorobenzene	ND		0.00088

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	111	66-128
Toluene-d8	119	68-126
4-Bromofluorobenzene	104	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-28-10
Date Analyzed:	5-28-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	05-206-19
Client ID:	**B8-10.0**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.00096
Chloromethane	ND		0.0048
Vinyl Chloride	ND		0.00096
Bromomethane	ND		0.00096
Chloroethane	ND		0.0048
Trichlorofluoromethane	ND		0.00096
1,1-Dichloroethene	ND		0.00096
Iodomethane	ND		0.0048
Methylene Chloride	ND		0.0048
(trans) 1,2-Dichloroethene	ND		0.00096
1,1-Dichloroethane	ND		0.00096
2,2-Dichloropropane	ND		0.00096
(cis) 1,2-Dichloroethene	ND		0.00096
Bromochloromethane	ND		0.00096
Chloroform	ND		0.00096
1,1,1-Trichloroethane	ND		0.00096
Carbon Tetrachloride	ND		0.00096
1,1-Dichloropropene	ND		0.00096
1,2-Dichloroethane	ND		0.00096
Trichloroethene	0.0012		0.00096
1,2-Dichloropropane	ND		0.00096
Dibromomethane	ND		0.00096
Bromodichloromethane	ND		0.00096
2-Chloroethyl Vinyl Ether	ND		0.0048
(cis) 1,3-Dichloropropene	ND		0.00096
(trans) 1,3-Dichloropropene	ND		0.00096

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-19
Client ID: B8-10.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00096
Tetrachloroethene	0.065		0.00096
1,3-Dichloropropane	ND		0.00096
Dibromochloromethane	ND		0.00096
1,2-Dibromoethane	ND		0.00096
Chlorobenzene	ND		0.00096
1,1,1,2-Tetrachloroethane	ND		0.00096
Bromoform	ND		0.00096
Bromobenzene	ND		0.00096
1,1,2,2-Tetrachloroethane	ND		0.00096
1,2,3-Trichloropropane	ND		0.00096
2-Chlorotoluene	ND		0.00096
4-Chlorotoluene	ND		0.00096
1,3-Dichlorobenzene	ND		0.00096
1,4-Dichlorobenzene	ND		0.00096
1,2-Dichlorobenzene	ND		0.00096
1,2-Dibromo-3-chloropropane	ND		0.0048
1,2,4-Trichlorobenzene	ND		0.00096
Hexachlorobutadiene	ND		0.0048
1,2,3-Trichlorobenzene	ND		0.00096

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	106	66-128
Toluene-d8	117	68-126
4-Bromofluorobenzene	104	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 5-28&6-1-10
Date Analyzed: 5-28&6-1-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 05-206-20
Client ID: B9-4.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0051
Vinyl Chloride	ND		0.0010
Bromomethane	ND		0.0010
Chloroethane	ND		0.0051
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Iodomethane	ND		0.0051
Methylene Chloride	ND		0.0051
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	0.0027		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	0.013		0.0010
1,2-Dichloropropane	ND		0.0010
Dibromomethane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0051
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-20
Client ID: B9-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	1.2		0.053
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
1,2-Dibromoethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
Bromoform	ND		0.0010
Bromobenzene	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0051
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0051
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	116	66-128
Toluene-d8	104	68-126
4-Bromofluorobenzene	104	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B

Date Extracted: 5-28&6-1-10
Date Analyzed: 5-28&6-1-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 05-206-21
Client ID: B9-10.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.00087
Chloromethane	ND		0.0044
Vinyl Chloride	ND		0.00087
Bromomethane	ND		0.00087
Chloroethane	ND		0.0044
Trichlorofluoromethane	ND		0.00087
1,1-Dichloroethene	ND		0.00087
Iodomethane	ND		0.0044
Methylene Chloride	ND		0.0044
(trans) 1,2-Dichloroethene	ND		0.00087
1,1-Dichloroethane	ND		0.00087
2,2-Dichloropropane	ND		0.00087
(cis) 1,2-Dichloroethene	0.043		0.00087
Bromochloromethane	ND		0.00087
Chloroform	ND		0.00087
1,1,1-Trichloroethane	ND		0.00087
Carbon Tetrachloride	ND		0.00087
1,1-Dichloropropene	ND		0.00087
1,2-Dichloroethane	ND		0.00087
Trichloroethene	0.020		0.00087
1,2-Dichloropropane	ND		0.00087
Dibromomethane	ND		0.00087
Bromodichloromethane	ND		0.00087
2-Chloroethyl Vinyl Ether	ND		0.0044
(cis) 1,3-Dichloropropene	ND		0.00087
(trans) 1,3-Dichloropropene	ND		0.00087

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-21
Client ID: B9-10.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00087
Tetrachloroethene	0.95		0.053
1,3-Dichloropropane	ND		0.00087
Dibromochloromethane	ND		0.00087
1,2-Dibromoethane	ND		0.00087
Chlorobenzene	ND		0.00087
1,1,1,2-Tetrachloroethane	ND		0.00087
Bromoform	ND		0.00087
Bromobenzene	ND		0.00087
1,1,2,2-Tetrachloroethane	ND		0.00087
1,2,3-Trichloropropane	ND		0.00087
2-Chlorotoluene	ND		0.00087
4-Chlorotoluene	ND		0.00087
1,3-Dichlorobenzene	ND		0.00087
1,4-Dichlorobenzene	ND		0.00087
1,2-Dichlorobenzene	ND		0.00087
1,2-Dibromo-3-chloropropane	ND		0.0044
1,2,4-Trichlorobenzene	ND		0.00087
Hexachlorobutadiene	ND		0.0044
1,2,3-Trichlorobenzene	ND		0.00087

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	110	66-128
Toluene-d8	120	68-126
4-Bromofluorobenzene	106	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-28&6-1-10
Date Analyzed:	5-28&6-1-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	05-206-22
Client ID:	**B10-4.0**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.00092
Chloromethane	ND		0.0046
Vinyl Chloride	ND		0.00092
Bromomethane	ND		0.00092
Chloroethane	ND		0.0046
Trichlorofluoromethane	ND		0.00092
1,1-Dichloroethene	ND		0.00092
Iodomethane	ND		0.0046
Methylene Chloride	ND		0.0046
(trans) 1,2-Dichloroethene	ND		0.00092
1,1-Dichloroethane	ND		0.00092
2,2-Dichloropropane	ND		0.00092
(cis) 1,2-Dichloroethene	ND		0.00092
Bromochloromethane	ND		0.00092
Chloroform	ND		0.00092
1,1,1-Trichloroethane	ND		0.00092
Carbon Tetrachloride	ND		0.00092
1,1-Dichloropropene	ND		0.00092
1,2-Dichloroethane	ND		0.00092
Trichloroethene	0.042		0.00092
1,2-Dichloropropane	ND		0.00092
Dibromomethane	ND		0.00092
Bromodichloromethane	ND		0.00092
2-Chloroethyl Vinyl Ether	ND		0.0046
(cis) 1,3-Dichloropropene	ND		0.00092
(trans) 1,3-Dichloropropene	ND		0.00092

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-22
Client ID: B10-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00092
Tetrachloroethene	16		0.24
1,3-Dichloropropane	ND		0.00092
Dibromochloromethane	ND		0.00092
1,2-Dibromoethane	ND		0.00092
Chlorobenzene	ND		0.00092
1,1,1,2-Tetrachloroethane	ND		0.00092
Bromoform	ND		0.00092
Bromobenzene	ND		0.00092
1,1,2,2-Tetrachloroethane	ND		0.00092
1,2,3-Trichloropropane	ND		0.00092
2-Chlorotoluene	ND		0.00092
4-Chlorotoluene	ND		0.00092
1,3-Dichlorobenzene	ND		0.00092
1,4-Dichlorobenzene	ND		0.00092
1,2-Dichlorobenzene	ND		0.00092
1,2-Dibromo-3-chloropropane	ND		0.0046
1,2,4-Trichlorobenzene	ND		0.00092
Hexachlorobutadiene	ND		0.0046
1,2,3-Trichlorobenzene	ND		0.00092

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	113	66-128
Toluene-d8	114	68-126
4-Bromofluorobenzene	98	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-28&6-1-10
Date Analyzed:	5-28&6-1-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	05-206-23
Client ID:	**B10-10.0**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.00096
Chloromethane	ND		0.0048
Vinyl Chloride	ND		0.00096
Bromomethane	ND		0.00096
Chloroethane	ND		0.0048
Trichlorofluoromethane	ND		0.00096
1,1-Dichloroethene	ND		0.00096
Iodomethane	ND		0.0048
Methylene Chloride	ND		0.0048
(trans) 1,2-Dichloroethene	0.0027		0.00096
1,1-Dichloroethane	ND		0.00096
2,2-Dichloropropane	ND		0.00096
(cis) 1,2-Dichloroethene	0.063		0.00096
Bromochloromethane	ND		0.00096
Chloroform	ND		0.00096
1,1,1-Trichloroethane	ND		0.00096
Carbon Tetrachloride	ND		0.00096
1,1-Dichloropropene	ND		0.00096
1,2-Dichloroethane	ND		0.00096
Trichloroethene	0.0046		0.00096
1,2-Dichloropropane	ND		0.00096
Dibromomethane	ND		0.00096
Bromodichloromethane	ND		0.00096
2-Chloroethyl Vinyl Ether	ND		0.0048
(cis) 1,3-Dichloropropene	ND		0.00096
(trans) 1,3-Dichloropropene	ND		0.00096

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-23
Client ID: B10-10.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00096
Tetrachloroethene	0.033		0.00091
1,3-Dichloropropane	ND		0.00096
Dibromochloromethane	ND		0.00096
1,2-Dibromoethane	ND		0.00096
Chlorobenzene	ND		0.00096
1,1,1,2-Tetrachloroethane	ND		0.00096
Bromoform	ND		0.00096
Bromobenzene	ND		0.00096
1,1,2,2-Tetrachloroethane	ND		0.00096
1,2,3-Trichloropropane	ND		0.00096
2-Chlorotoluene	ND		0.00096
4-Chlorotoluene	ND		0.00096
1,3-Dichlorobenzene	ND		0.00096
1,4-Dichlorobenzene	ND		0.00096
1,2-Dichlorobenzene	ND		0.00096
1,2-Dibromo-3-chloropropane	ND		0.0048
1,2,4-Trichlorobenzene	ND		0.00096
Hexachlorobutadiene	ND		0.0048
1,2,3-Trichlorobenzene	ND		0.00096

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	109	66-128
Toluene-d8	122	68-126
4-Bromofluorobenzene	112	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	5-28&6-1-10
Date Analyzed:	5-28&6-1-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	05-206-24
Client ID:	**B11-4.0**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.00089
Chloromethane	ND		0.0045
Vinyl Chloride	ND		0.00089
Bromomethane	ND		0.00089
Chloroethane	ND		0.0045
Trichlorofluoromethane	ND		0.00089
1,1-Dichloroethene	ND		0.00089
Iodomethane	ND		0.0045
Methylene Chloride	ND		0.0045
(trans) 1,2-Dichloroethene	ND		0.00089
1,1-Dichloroethane	ND		0.00089
2,2-Dichloropropane	ND		0.00089
(cis) 1,2-Dichloroethene	ND		0.00089
Bromochloromethane	ND		0.00089
Chloroform	ND		0.00089
1,1,1-Trichloroethane	ND		0.00089
Carbon Tetrachloride	ND		0.00089
1,1-Dichloropropene	ND		0.00089
1,2-Dichloroethane	ND		0.00089
Trichloroethene	0.044		0.00089
1,2-Dichloropropane	ND		0.00089
Dibromomethane	ND		0.00089
Bromodichloromethane	ND		0.00089
2-Chloroethyl Vinyl Ether	ND		0.0045
(cis) 1,3-Dichloropropene	ND		0.00089
(trans) 1,3-Dichloropropene	ND		0.00089

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-24
Client ID: B11-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00089
Tetrachloroethene	2.6		0.095
1,3-Dichloropropane	ND		0.00089
Dibromochloromethane	ND		0.00089
1,2-Dibromoethane	ND		0.00089
Chlorobenzene	ND		0.00089
1,1,1,2-Tetrachloroethane	ND		0.00089
Bromoform	ND		0.00089
Bromobenzene	ND		0.00089
1,1,2,2-Tetrachloroethane	ND		0.00089
1,2,3-Trichloropropane	ND		0.00089
2-Chlorotoluene	ND		0.00089
4-Chlorotoluene	ND		0.00089
1,3-Dichlorobenzene	ND		0.00089
1,4-Dichlorobenzene	ND		0.00089
1,2-Dichlorobenzene	ND		0.00089
1,2-Dibromo-3-chloropropane	ND		0.0045
1,2,4-Trichlorobenzene	ND		0.00089
Hexachlorobutadiene	ND		0.0045
1,2,3-Trichlorobenzene	ND		0.00089

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	109	66-128
Toluene-d8	95	68-126
4-Bromofluorobenzene	96	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 5-28-10
Date Analyzed: 5-28-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 05-206-25
Client ID: B11-10.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.00094
Chloromethane	ND		0.0047
Vinyl Chloride	ND		0.00094
Bromomethane	ND		0.00094
Chloroethane	ND		0.0047
Trichlorofluoromethane	ND		0.00094
1,1-Dichloroethene	ND		0.00094
Iodomethane	ND		0.0047
Methylene Chloride	ND		0.0047
(trans) 1,2-Dichloroethene	ND		0.00094
1,1-Dichloroethane	ND		0.00094
2,2-Dichloropropane	ND		0.00094
(cis) 1,2-Dichloroethene	ND		0.00094
Bromochloromethane	ND		0.00094
Chloroform	ND		0.00094
1,1,1-Trichloroethane	ND		0.00094
Carbon Tetrachloride	ND		0.00094
1,1-Dichloropropene	ND		0.00094
1,2-Dichloroethane	ND		0.00094
Trichloroethene	0.0052		0.00094
1,2-Dichloropropane	ND		0.00094
Dibromomethane	ND		0.00094
Bromodichloromethane	ND		0.00094
2-Chloroethyl Vinyl Ether	ND		0.0047
(cis) 1,3-Dichloropropene	ND		0.00094
(trans) 1,3-Dichloropropene	ND		0.00094

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 05-206-25
Client ID: B11-10.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00094
Tetrachloroethene	0.099		0.00094
1,3-Dichloropropane	ND		0.00094
Dibromochloromethane	ND		0.00094
1,2-Dibromoethane	ND		0.00094
Chlorobenzene	ND		0.00094
1,1,1,2-Tetrachloroethane	ND		0.00094
Bromoform	ND		0.00094
Bromobenzene	ND		0.00094
1,1,2,2-Tetrachloroethane	ND		0.00094
1,2,3-Trichloropropane	ND		0.00094
2-Chlorotoluene	ND		0.00094
4-Chlorotoluene	ND		0.00094
1,3-Dichlorobenzene	ND		0.00094
1,4-Dichlorobenzene	ND		0.00094
1,2-Dichlorobenzene	ND		0.00094
1,2-Dibromo-3-chloropropane	ND		0.0047
1,2,4-Trichlorobenzene	ND		0.00094
Hexachlorobutadiene	ND		0.0047
1,2,3-Trichlorobenzene	ND		0.00094

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	106	66-128
Toluene-d8	111	68-126
4-Bromofluorobenzene	106	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 1 of 2

Date Extracted: 5-28-10
Date Analyzed: 5-28-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0528S1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0050
Vinyl Chloride	ND		0.0010
Bromomethane	ND		0.0010
Chloroethane	ND		0.0050
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Iodomethane	ND		0.0050
Methylene Chloride	ND		0.0050
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	ND		0.0010
1,2-Dichloropropane	ND		0.0010
Dibromomethane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0050
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 2 of 2

Lab ID: MB0528S1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	ND		0.0010
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
1,2-Dibromoethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
Bromoform	ND		0.0010
Bromobenzene	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0050
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0050
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	106	66-128
Toluene-d8	115	68-126
4-Bromofluorobenzene	108	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 1 of 2

Date Extracted: 6-1-10
Date Analyzed: 6-1-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0601S1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0050
Vinyl Chloride	ND		0.0010
Bromomethane	ND		0.0010
Chloroethane	ND		0.0050
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Iodomethane	ND		0.0050
Methylene Chloride	ND		0.0050
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	ND		0.0010
1,2-Dichloropropane	ND		0.0010
Dibromomethane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0050
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 2 of 2

Lab ID: MB0601S1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	ND		0.0010
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
1,2-Dibromoethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
Bromoform	ND		0.0010
Bromobenzene	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0050
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0050
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	106	66-128
Toluene-d8	122	68-126
4-Bromofluorobenzene	111	53-134

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 5-28-10
Date Analyzed: 5-28-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: SB0528S1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	0.0500	0.0585	117	0.0627	125	70-130	
Benzene	0.0500	0.0508	102	0.0520	104	70-121	
Trichloroethene	0.0500	0.0473	95	0.0474	95	70-124	
Toluene	0.0500	0.0500	100	0.0493	99	70-123	
Chlorobenzene	0.0500	0.0449	90	0.0465	93	71-119	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	7	14	
Benzene	2	10	
Trichloroethene	0	12	
Toluene	1	12	
Chlorobenzene	4	9	

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 6-1-10
Date Analyzed: 6-1-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: SB0601S1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	0.0500	0.0555	111	0.0617	123	70-130	
Benzene	0.0500	0.0493	99	0.0515	103	70-121	
Trichloroethene	0.0500	0.0479	96	0.0502	100	70-124	
Toluene	0.0500	0.0513	103	0.0549	110	70-123	
Chlorobenzene	0.0500	0.0447	89	0.0457	91	71-119	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	10	14	
Benzene	4	10	
Trichloroethene	5	12	
Toluene	7	12	
Chlorobenzene	2	9	

Date of Report: June 2, 2010
Samples Submitted: May 27, 2010
Laboratory Reference: 1005-206
Project: 110-001

% MOISTURE

Date Analyzed: 5-28-10

Client ID	Lab ID	% Moisture
B5-7.0	05-206-15	9
B6-10.0	05-206-16	7
B7-6.0	05-206-17	13
B8-4.0	05-206-18	9
B8-10.0	05-206-19	13
B9-4.0	05-206-20	4
B9-10.0	05-206-21	13
B10-4.0	05-206-22	6
B10-10.0	05-206-23	15
B11-4.0	05-206-24	7
B11-10.0	05-206-25	18

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Pacific Crest Env.
Project Number: 110-001
Project Name: Sound Mattress
Project Manager: Bill Carroll
Sampled by: Monty Busbee

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Day ☐ 3 Day
- ☒ Standard (7 working days) (TPH analysis 5 working days)
- ☐ _____ (other)

Laboratory Number: 05-206

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	% Moisture
1	B5-12-052510	5/25/10	11:12	H_2O	3					X									
2	B5-26-052510	5/25/10	12:30	H_2O	3					X									
3	B6-12-052510	5/25/10	13:30	H_2O	3					X									
4	B6-30-052510	5/25/10	3:05	H_2O	3					X									
5	B7-12-052510	5/25/10	4:30	H_2O	3					X									
6	B7-30-052510	5/25/10	6:20	H_2O	3					X									
7	B8-15-052610	5/26/10	9:20	H_2O	3					X									
8	B8-27-052610	5/26/10	11:00	H_2O	3					X									
9	B9-15-052610	5/26/10	12:00	H_2O	3					X									
10	B9-27-052610	5/26/10	13:08	H_2O	3					X									

	Signature	Company	Date	Time
Relinquished by		P. Crest Env.	5/27/10	10:15
Received by		CCE	5/27/10	1015
Relinquished by				
Received by				
Relinquished by				
Received by				

Comments/Special Instructions:

Reviewed by/Date

Reviewed by/Date

Chromatograms with final report ☐

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Report Copy Pink - Client Copy

Chain of Custody

OnSite Environmental Inc.
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Pacific Crest Environmental
Project Number: 110-001
Project Name: Sound Mattress
Project Manager: Bill Carroll
Sampled by: Monty Busbee

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Day ☐ 3 Day
- ☒ Standard (7 working days)
  (TPH analysis 5 working days)
- ☐ _____ (other)

Laboratory Number: 05-206

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	% Moisture
11	B10-16-052610	5/26/10	14:45	H_2O	3					X									
12	B10-28-052610	5/26/10	3:45	H_2O	3					X									
13	B11-16-052610	5/26/10	5:00	H_2O	3					X									
14	B11-28-052610	5/26/10	5:55	H_2O	3					X									
15	B5-7.0	5/25/10	11:25	soil	4					X									X
16	B6-10.0	5/25/10	1:22	soil	4					X									X
17	B7-6.0	5/25/10	5:09	soil	4					X									X
18	B8-4.0	5/26/10	9:45	soil	4					X									X
19	B8-10.0	5/26/10	9:55	soil	4					X									X
20	B9-4.0	5/26/10	12:31	soil	4					X									X

	Signature	Company	Date	Time
Relinquished by		Pacific Crest	5/27/10	10:15
Received by		OSE	5/27/10	1015
Relinquished by				
Received by				
Relinquished by				
Received by				

Comments/Special Instructions:

Reviewed by/Date

Reviewed by/Date

Chromatograms with final report ☐

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Report Copy Pink - Client Copy

Chain of Custody

OnSite Environmental Inc.
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Pacific Crest Env.
Project Number: 110-001
Project Name: Sound Mattress
Project Manager: Bill Carroll
Sampled by: Monty Busbee

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Day ☐ 3 Day
- ☒ Standard (7 working days)
  (TPH analysis 5 working days)
- ☐ _____ (other)

Laboratory Number: 05-206

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	% Moisture
21	B9-10.0	5/26/10	12:35	soil	4					X									X
22	B10-4.0	5/26/10	3:20	soil	4					X									X
23	B10-10.0	5/26/10	3:27	soil	4					X									X
24	B11-4.0	5/26/10	5:17	soil	4					X									X
25	B11-10.0	5/26/10	5:21	soil	4					X									X

	Signature	Company	Date	Time
Relinquished by		Pacific Crest Env.	5/27/10	10:15
Received by		OSE	5/27/10	1015
Relinquished by				
Received by				
Relinquished by				
Received by				

Comments/Special Instructions:

Reviewed by/Date

Reviewed by/Date

Chromatograms with final report ☐

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Report Copy Pink - Client Copy

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 21, 2010

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1006-138

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on June 16, 2010.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

Case Narrative

Samples were collected on June 15 and 16, 2010 and received by the laboratory on June 16, 2010. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Halogenated Volatiles (soil) EPA 8260B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 6-17-10
Date Analyzed: 6-17-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 06-138-01
Client ID: MW15-8.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0051
Vinyl Chloride	ND		0.0010
Bromomethane	ND		0.0010
Chloroethane	ND		0.0051
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Iodomethane	ND		0.0051
Methylene Chloride	ND		0.0051
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	ND		0.0010
1,2-Dichloropropane	ND		0.0010
Dibromomethane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0051
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-138-01
Client ID: MW15-8.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	ND		0.0010
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
1,2-Dibromoethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
Bromoform	ND		0.0010
Bromobenzene	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0051
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0051
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	94	66-128
Toluene-d8	95	68-126
4-Bromofluorobenzene	80	53-134

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 6-17-10
Date Analyzed: 6-17-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 06-138-03
Client ID: B12-4.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0050
Vinyl Chloride	ND		0.0010
Bromomethane	ND		0.0010
Chloroethane	ND		0.0050
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Iodomethane	ND		0.0050
Methylene Chloride	ND		0.0050
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	ND		0.0010
1,2-Dichloropropane	ND		0.0010
Dibromomethane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0050
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-138-03
Client ID: B12-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	ND		0.0010
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
1,2-Dibromoethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
Bromoform	ND		0.0010
Bromobenzene	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0050
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0050
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	93	66-128
Toluene-d8	97	68-126
4-Bromofluorobenzene	84	53-134

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-17-10
Date Analyzed:	6-17-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	06-138-05
Client ID:	**B13-4.0**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0050
Vinyl Chloride	ND		0.0010
Bromomethane	ND		0.0010
Chloroethane	ND		0.0050
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Iodomethane	ND		0.0050
Methylene Chloride	ND		0.0050
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	0.0032		0.0010
1,2-Dichloropropane	ND		0.0010
Dibromomethane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0050
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-138-05
Client ID: B13-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	0.029		0.0010
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
1,2-Dibromoethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
Bromoform	ND		0.0010
Bromobenzene	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0050
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0050
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	66-128
Toluene-d8	96	68-126
4-Bromofluorobenzene	84	53-134

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 6-17-10
Date Analyzed: 6-17-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 06-138-06
Client ID: B13-10.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.00094
Chloromethane	ND		0.0047
Vinyl Chloride	ND		0.00094
Bromomethane	ND		0.00094
Chloroethane	ND		0.0047
Trichlorofluoromethane	ND		0.00094
1,1-Dichloroethene	ND		0.00094
Iodomethane	ND		0.0047
Methylene Chloride	ND		0.0047
(trans) 1,2-Dichloroethene	ND		0.00094
1,1-Dichloroethane	ND		0.00094
2,2-Dichloropropane	ND		0.00094
(cis) 1,2-Dichloroethene	0.037		0.00094
Bromochloromethane	ND		0.00094
Chloroform	ND		0.00094
1,1,1-Trichloroethane	ND		0.00094
Carbon Tetrachloride	ND		0.00094
1,1-Dichloropropene	ND		0.00094
1,2-Dichloroethane	ND		0.00094
Trichloroethene	0.013		0.00094
1,2-Dichloropropane	ND		0.00094
Dibromomethane	ND		0.00094
Bromodichloromethane	ND		0.00094
2-Chloroethyl Vinyl Ether	ND		0.0047
(cis) 1,3-Dichloropropene	ND		0.00094
(trans) 1,3-Dichloropropene	ND		0.00094

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-138-06
Client ID: B13-10.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00094
Tetrachloroethene	0.045		0.00094
1,3-Dichloropropane	ND		0.00094
Dibromochloromethane	ND		0.00094
1,2-Dibromoethane	ND		0.00094
Chlorobenzene	ND		0.00094
1,1,1,2-Tetrachloroethane	ND		0.00094
Bromoform	ND		0.00094
Bromobenzene	ND		0.00094
1,1,2,2-Tetrachloroethane	ND		0.00094
1,2,3-Trichloropropane	ND		0.00094
2-Chlorotoluene	ND		0.00094
4-Chlorotoluene	ND		0.00094
1,3-Dichlorobenzene	ND		0.00094
1,4-Dichlorobenzene	ND		0.00094
1,2-Dichlorobenzene	ND		0.00094
1,2-Dibromo-3-chloropropane	ND		0.0047
1,2,4-Trichlorobenzene	ND		0.00094
Hexachlorobutadiene	ND		0.0047
1,2,3-Trichlorobenzene	ND		0.00094

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	98	66-128
Toluene-d8	100	68-126
4-Bromofluorobenzene	86	53-134

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-17-10
Date Analyzed:	6-17-10
Matrix:	Soil
Units:	mg/kg (ppm)
Lab ID:	06-138-08
Client ID:	**B14-4.0**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.00092
Chloromethane	ND		0.0046
Vinyl Chloride	ND		0.00092
Bromomethane	ND		0.00092
Chloroethane	ND		0.0046
Trichlorofluoromethane	ND		0.00092
1,1-Dichloroethene	ND		0.00092
Iodomethane	ND		0.0046
Methylene Chloride	ND		0.0046
(trans) 1,2-Dichloroethene	ND		0.00092
1,1-Dichloroethane	ND		0.00092
2,2-Dichloropropane	ND		0.00092
(cis) 1,2-Dichloroethene	ND		0.00092
Bromochloromethane	ND		0.00092
Chloroform	ND		0.00092
1,1,1-Trichloroethane	ND		0.00092
Carbon Tetrachloride	ND		0.00092
1,1-Dichloropropene	ND		0.00092
1,2-Dichloroethane	ND		0.00092
Trichloroethene	0.020		0.00092
1,2-Dichloropropane	ND		0.00092
Dibromomethane	ND		0.00092
Bromodichloromethane	ND		0.00092
2-Chloroethyl Vinyl Ether	ND		0.0046
(cis) 1,3-Dichloropropene	ND		0.00092
(trans) 1,3-Dichloropropene	ND		0.00092

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-138-08
Client ID: B14-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00092
Tetrachloroethene	0.10		0.00092
1,3-Dichloropropane	ND		0.00092
Dibromochloromethane	ND		0.00092
1,2-Dibromoethane	ND		0.00092
Chlorobenzene	ND		0.00092
1,1,1,2-Tetrachloroethane	ND		0.00092
Bromoform	ND		0.00092
Bromobenzene	ND		0.00092
1,1,2,2-Tetrachloroethane	ND		0.00092
1,2,3-Trichloropropane	ND		0.00092
2-Chlorotoluene	ND		0.00092
4-Chlorotoluene	ND		0.00092
1,3-Dichlorobenzene	ND		0.00092
1,4-Dichlorobenzene	ND		0.00092
1,2-Dichlorobenzene	ND		0.00092
1,2-Dibromo-3-chloropropane	ND		0.0046
1,2,4-Trichlorobenzene	ND		0.00092
Hexachlorobutadiene	ND		0.0046
1,2,3-Trichlorobenzene	ND		0.00092

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	66-128
Toluene-d8	97	68-126
4-Bromofluorobenzene	79	53-134

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted: 6-17-10
Date Analyzed: 6-17-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 06-138-09
Client ID: B14-8.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.00098
Chloromethane	ND		0.0049
Vinyl Chloride	ND		0.00098
Bromomethane	ND		0.00098
Chloroethane	ND		0.0049
Trichlorofluoromethane	ND		0.00098
1,1-Dichloroethene	ND		0.00098
Iodomethane	ND		0.0049
Methylene Chloride	ND		0.0049
(trans) 1,2-Dichloroethene	ND		0.00098
1,1-Dichloroethane	ND		0.00098
2,2-Dichloropropane	ND		0.00098
(cis) 1,2-Dichloroethene	ND		0.00098
Bromochloromethane	ND		0.00098
Chloroform	ND		0.00098
1,1,1-Trichloroethane	ND		0.00098
Carbon Tetrachloride	ND		0.00098
1,1-Dichloropropene	ND		0.00098
1,2-Dichloroethane	ND		0.00098
Trichloroethene	0.0042		0.00098
1,2-Dichloropropane	ND		0.00098
Dibromomethane	ND		0.00098
Bromodichloromethane	ND		0.00098
2-Chloroethyl Vinyl Ether	ND		0.0049
(cis) 1,3-Dichloropropene	ND		0.00098
(trans) 1,3-Dichloropropene	ND		0.00098

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-138-09
Client ID: B14-8.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00098
Tetrachloroethene	0.027		0.00098
1,3-Dichloropropane	ND		0.00098
Dibromochloromethane	ND		0.00098
1,2-Dibromoethane	ND		0.00098
Chlorobenzene	ND		0.00098
1,1,1,2-Tetrachloroethane	ND		0.00098
Bromoform	ND		0.00098
Bromobenzene	ND		0.00098
1,1,2,2-Tetrachloroethane	ND		0.00098
1,2,3-Trichloropropane	ND		0.00098
2-Chlorotoluene	ND		0.00098
4-Chlorotoluene	ND		0.00098
1,3-Dichlorobenzene	ND		0.00098
1,4-Dichlorobenzene	ND		0.00098
1,2-Dichlorobenzene	ND		0.00098
1,2-Dibromo-3-chloropropane	ND		0.0049
1,2,4-Trichlorobenzene	ND		0.00098
Hexachlorobutadiene	ND		0.0049
1,2,3-Trichlorobenzene	ND		0.00098

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	98	66-128
Toluene-d8	99	68-126
4-Bromofluorobenzene	86	53-134

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 1 of 2

Date Extracted: 6-17-10
Date Analyzed: 6-17-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0617S1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0050
Vinyl Chloride	ND		0.0010
Bromomethane	ND		0.0010
Chloroethane	ND		0.0050
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Iodomethane	ND		0.0050
Methylene Chloride	ND		0.0050
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	ND		0.0010
1,2-Dichloropropane	ND		0.0010
Dibromomethane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0050
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 2 of 2

Lab ID: MB0617S1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	ND		0.0010
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
1,2-Dibromoethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
Bromoform	ND		0.0010
Bromobenzene	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0050
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0050
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	93	66-128
Toluene-d8	100	68-126
4-Bromofluorobenzene	88	53-134

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 6-17-10
Date Analyzed: 6-17-10

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: SB0617S1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	0.0500	0.0377	75	0.0377	75	70-130	
Benzene	0.0500	0.0491	98	0.0483	97	70-121	
Trichloroethene	0.0500	0.0453	91	0.0474	95	70-124	
Toluene	0.0500	0.0469	94	0.0480	96	70-123	
Chlorobenzene	0.0500	0.0445	89	0.0441	88	71-119	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	0	14	
Benzene	2	10	
Trichloroethene	5	12	
Toluene	2	12	
Chlorobenzene	1	9	

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-17-10
Date Analyzed:	6-17-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-138-02
Client ID:	**B12-10-061610**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-138-02
Client ID: B12-10-061610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	92	71-126
Toluene-d8	84	76-116
4-Bromofluorobenzene	78	70-123

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-17-10
Date Analyzed:	6-17-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-138-04
Client ID:	**B12-28-061610**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	3.0		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	2.1		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	11		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-138-04
Client ID: B12-28-061610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	71-126
Toluene-d8	84	76-116
4-Bromofluorobenzene	82	70-123

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-17-10
Date Analyzed:	6-17-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-138-07
Client ID:	**B13-28-061610**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	1.7		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	5.7		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	2.5		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-138-07
Client ID: B13-28-061610

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	3.3		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	92	71-126
Toluene-d8	84	76-116
4-Bromofluorobenzene	80	70-123

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 1 of 2

Date Extracted: 6-17-10
Date Analyzed: 6-17-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0617W1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
Page 2 of 2

Lab ID: MB0617W1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	89	71-126
Toluene-d8	81	76-116
4-Bromofluorobenzene	81	70-123

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 6-17-10
Date Analyzed: 6-17-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0617W1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	10.0	9.71	97	9.94	99	70-130	
Benzene	10.0	9.72	97	10.1	101	73-130	
Trichloroethene	10.0	9.56	96	9.16	92	79-122	
Toluene	10.0	9.12	91	9.16	92	80-121	
Chlorobenzene	10.0	9.70	97	9.70	97	83-116	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	2	15	
Benzene	4	14	
Trichloroethene	4	14	
Toluene	0	13	
Chlorobenzene	0	13	

Date of Report: June 21, 2010
Samples Submitted: June 16, 2010
Laboratory Reference: 1006-138
Project: 110-001

% MOISTURE

Date Analyzed: 6-18-10

Client ID	Lab ID	% Moisture
MW15-8.0	06-138-01	24
B12-4.0	06-138-03	6
B13-4.0	06-138-05	15
B13-10.0	06-138-06	15
B14-4.0	06-138-08	5
B14-8.0	06-138-09	11

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Pacific Crest Environmental
Project Number: 110-001
Project Name: Sound Mattress
Project Manager: William Carroll
Sampled by: Monty Busbee

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Day ☐ 3 Day
- ☒ Standard (7 working days) (TPH analysis 5 working days)
- ☐ _____ (other)

Laboratory Number: 06-138

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D / SIM	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	% Moisture
1	MW15-8.0	6/15/10	12:00	soil	4					X									X
2	B12-10-061610	6/16/10	9:35	H_2O	3					X									
3	B12-4.0	6/16/10	10:00	soil	4					X									X
4	B12-28-061610	6/16/10	10:55	H_2O	3					X									
5	B13-4.0	6/16/10	11:55	soil	4					X									X
6	~~B12~~ B13-10.0	6/16/10	12:03	soil	4					X									X
7	~~B12~~ B13-28-061610	6/16/10	12:50	H_2O	3					X									
8	B14-4.0	6/16/10	1335	soil	4					X									X
9	B14-8.0	6/16/10	1350	soil	4					X									X

	Signature	Company	Date	Time
Relinquished by		Pacific Crest Environ.	6/16/10	5:00
Received by		OSE	6/16/10	500
Relinquished by				
Received by				
Relinquished by				
Received by				

Comments/Special Instructions:
Please send EDD format to anord@pcenv.com

Reviewed by/Date

Reviewed by/Date

Chromatograms with final report ☐

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Client Copy

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 23, 2010

Bill Carroll
Pacific Crest Environmental, LLC
1531 Bendigo N.
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1006-145

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on June 17, 2010.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: June 23, 2010
Samples Submitted: June 17, 2010
Laboratory Reference: 1006-145
Project: 110-001

Case Narrative

Samples were collected on June 17, 2010 and received by the laboratory on June 17, 2010. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: June 23, 2010
Samples Submitted: June 17, 2010
Laboratory Reference: 1006-145
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 1 of 2

Date Extracted:	6-18-10
Date Analyzed:	6-18-10
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	06-145-01
Client ID:	**MW15-061710**

Compound	**Results**	**Flags**	**PQL**
Dichlorodifluoromethane	ND		10
Chloromethane	ND		50
Vinyl Chloride	280		10
Bromomethane	ND		10
Chloroethane	ND		50
Trichlorofluoromethane	ND		10
1,1-Dichloroethene	ND		10
Iodomethane	ND		50
Methylene Chloride	ND		50
(trans) 1,2-Dichloroethene	12		10
1,1-Dichloroethane	ND		10
2,2-Dichloropropane	ND		10
(cis) 1,2-Dichloroethene	1400		10
Bromochloromethane	ND		10
Chloroform	ND		10
1,1,1-Trichloroethane	ND		10
Carbon Tetrachloride	ND		10
1,1-Dichloropropene	ND		10
1,2-Dichloroethane	ND		10
Trichloroethene	ND		10
1,2-Dichloropropane	ND		10
Dibromomethane	ND		10
Bromodichloromethane	ND		10
2-Chloroethyl Vinyl Ether	ND		50
(cis) 1,3-Dichloropropene	ND		10
(trans) 1,3-Dichloropropene	ND		10

Date of Report: June 23, 2010
Samples Submitted: June 17, 2010
Laboratory Reference: 1006-145
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
page 2 of 2

Lab ID: 06-145-01
Client ID: MW15-061710

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		10
Tetrachloroethene	ND		10
1,3-Dichloropropane	ND		10
Dibromochloromethane	ND		10
1,2-Dibromoethane	ND		10
Chlorobenzene	ND		10
1,1,1,2-Tetrachloroethane	ND		10
Bromoform	ND		50
Bromobenzene	ND		10
1,1,2,2-Tetrachloroethane	ND		10
1,2,3-Trichloropropane	ND		10
2-Chlorotoluene	ND		10
4-Chlorotoluene	ND		10
1,3-Dichlorobenzene	ND		10
1,4-Dichlorobenzene	ND		10
1,2-Dichlorobenzene	ND		10
1,2-Dibromo-3-chloropropane	ND		50
1,2,4-Trichlorobenzene	ND		10
Hexachlorobutadiene	ND		10
1,2,3-Trichlorobenzene	ND		10

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	95	71-126
Toluene-d8	86	76-116
4-Bromofluorobenzene	82	70-123

Date of Report: June 23, 2010
Samples Submitted: June 17, 2010
Laboratory Reference: 1006-145
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 1 of 2

Date Extracted: 6-18-10
Date Analyzed: 6-18-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0618W1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.20
Chloromethane	ND		1.0
Vinyl Chloride	ND		0.20
Bromomethane	ND		0.20
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Iodomethane	ND		1.0
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
1,1-Dichloroethane	ND		0.20
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
Bromochloromethane	ND		0.20
Chloroform	ND		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	ND		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20

Date of Report: June 23, 2010
Samples Submitted: June 17, 2010
Laboratory Reference: 1006-145
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
page 2 of 2

Lab ID: MB0618W1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Bromoform	ND		1.0
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
1,2,3-Trichlorobenzene	ND		0.20

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	71-126
Toluene-d8	84	76-116
4-Bromofluorobenzene	81	70-123

Date of Report: June 23, 2010
Samples Submitted: June 17, 2010
Laboratory Reference: 1006-145
Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 6-18-10
Date Analyzed: 6-18-10

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0618W1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	10.0	9.96	100	9.50	95	70-130	
Benzene	10.0	10.2	102	9.88	99	73-130	
Trichloroethene	10.0	9.48	95	9.03	90	79-122	
Toluene	10.0	9.35	94	9.15	92	80-121	
Chlorobenzene	10.0	9.94	99	9.51	95	83-116	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	5	15	
Benzene	3	14	
Trichloroethene	5	14	
Toluene	2	13	
Chlorobenzene	4	13	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Pacific Coast Environmental
Project Number: 110-001
Project Name: ~~Bill Carroll~~ Sound Mattress
Project Manager: Bill Carroll
Sampled by:

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☒ Standard (7 working days)
  (TPH analysis 5 working days)
- ☐ _____ (other)

Laboratory Number: 06-145

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D / SIM	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664						% Moisture
1	MW15-061710	6/17/10	1330	H2O	3					X														

	Signature	Company	Date	Time
Relinquished by		Pacific Coast Env.	6/17/10	3:25
Received by		[illegible]	6/17/10	1575
Relinquished by				
Received by				
Relinquished by				
Received by				

Comments/Special Instructions:
Please send EDD format data to anord@pacenv.com

Reviewed by/Date

Reviewed by/Date

Chromatograms with final report ☐

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Client Copy

APPENDIX C
MW-15 TIDAL STUDY DATA

DATA GAP INVESTIGATION REPORT

Former Sound Mattress and Felt Property
1940 East 11th Street
Tacoma, Washington

Pacific Crest PN: 110-001

Table C-1
Hourly Groundwater Elevation Data Summary for Well MW-15
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Date	Time	Uncomp. HT. WTR above tranducer[1]	Baro. Press. (feet H2O)[2]	Comp HT. H2O above trans.[3]	Depth to water[4]
6/16/2010	11:00:00	47.93	34.06	13.87	11.20
6/16/2010	12:00:00	45.94	34.06	11.88	13.19
6/16/2010	13:00:00	44.35	34.06	10.29	14.78
6/16/2010	14:00:00	43.49	34.06	9.43	15.64
6/16/2010	15:00:00	43.38	34.06	9.32	15.75
6/16/2010	16:00:00	44.1	34.06	10.04	15.03
6/16/2010	17:00:00	45.57	34.06	11.51	13.56
6/16/2010	18:00:00	47.72	34.05	13.67	11.40
6/16/2010	19:00:00	49.83	34.05	15.78	9.29
6/16/2010	20:00:00	51.48	34.06	17.42	7.65
6/16/2010	21:00:00	52.4	34.07	18.33	6.74
6/16/2010	22:00:00	52.72	34.08	18.64	6.43
6/16/2010	23:00:00	52.35	34.09	18.26	6.81
6/17/2010	0:00:00	51.55	34.09	17.46	7.61
6/17/2010	1:00:00	50.29	34.09	16.20	8.87
6/17/2010	2:00:00	48.97	34.10	14.87	10.20
6/17/2010	3:00:00	48	34.11	13.89	11.18
6/17/2010	4:00:00	47.69	34.12	13.57	11.50
6/17/2010	5:00:00	47.97	34.11	13.86	11.21
6/17/2010	6:00:00	48.74	34.13	14.61	10.46
6/17/2010	7:00:00	49.67	34.13	15.54	9.53
6/17/2010	8:00:00	50.51	34.13	16.38	8.69
6/17/2010	9:00:00	50.84	34.14	16.70	8.37
6/17/2010	10:00:00	50.52	34.14	16.38	8.69
6/17/2010	11:00:00	49.5	34.14	15.36	9.71
6/17/2010	12:00:00	47.95	34.16	13.79	11.28
				25-hour Mean Depth to Water (btoc)[5] =	**10.57**

Notes:

[1]Uncompensated hieght of water above the transducer (in feet) measured using a Heron dipper-log data logging pressure transducer

[2]Barometric pressure as reported at NOAA Station 9446484 (http://tidesandcurrents.noaa.gov/geo.shtml?location=9446484).

[3]Compensated Height of water above the transducer (in feet) calculated by subtracting the NOAA barometric pressure from the uncompensated height of water above the transducer.

[4]Depth to water below top of casing (btoc) calculated by subtracting the compensated height of water above the transducer from the depth btoc of the transducer (25.07 feet).

[5]25-hour mean was used for potentiometric surface calculations as described by Serfes (1991).

Table C-2
Groundwater Elevation Data for Well MW-15 and Tidal Stage for Sitcum Waterway
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Date	Time[1]	DTW[2]	Stage[3]	Date	Time[1]	DTW[2]	Stage[3]
6/15/2010	21:00:00	6.62	12.06	6/16/2010	1:12:00	9.86	6.93
6/15/2010	21:06:00	6.62	12.06	6/16/2010	1:18:00	9.97	6.79
6/15/2010	21:12:00	6.61	12.06	6/16/2010	1:24:00	10.06	6.66
6/15/2010	21:18:00	6.61	12.04	6/16/2010	1:30:00	10.15	6.54
6/15/2010	21:24:00	6.62	12	6/16/2010	1:36:00	10.24	6.42
6/15/2010	21:30:00	6.62	11.96	6/16/2010	1:42:00	10.32	6.35
6/15/2010	21:36:00	6.66	11.9	6/16/2010	1:48:00	10.39	6.25
6/15/2010	21:42:00	6.69	11.87	6/16/2010	1:54:00	10.47	6.15
6/15/2010	21:48:00	6.69	11.83	6/16/2010	2:00:00	10.55	6.06
6/15/2010	21:54:00	6.74	11.75	6/16/2010	2:06:00	10.58	5.99
6/15/2010	22:00:00	6.76	11.67	6/16/2010	2:12:00	10.65	5.93
6/15/2010	22:06:00	6.84	11.56	6/16/2010	2:18:00	10.7	5.85
6/15/2010	22:12:00	6.89	11.49	6/16/2010	2:24:00	10.75	5.81
6/15/2010	22:18:00	6.92	11.4	6/16/2010	2:30:00	10.77	5.76
6/15/2010	22:24:00	6.99	11.29	6/16/2010	2:36:00	10.8	5.75
6/15/2010	22:30:00	7.05	11.19	6/16/2010	2:42:00	10.81	5.73
6/15/2010	22:36:00	7.09	11.1	6/16/2010	2:48:00	10.83	5.72
6/15/2010	22:42:00	7.17	10.97	6/16/2010	2:54:00	10.85	5.71
6/15/2010	22:48:00	7.23	10.87	6/16/2010	3:00:00	10.88	5.68
6/15/2010	22:54:00	7.3	10.74	6/16/2010	3:06:00	10.86	5.7
6/15/2010	23:00:00	7.4	10.6	6/16/2010	3:12:00	10.85	5.73
6/15/2010	23:06:00	7.47	10.51	6/16/2010	3:18:00	10.85	5.76
6/15/2010	23:12:00	7.55	10.35	6/16/2010	3:24:00	10.81	5.82
6/15/2010	23:18:00	7.65	10.21	6/16/2010	3:30:00	10.8	5.86
6/15/2010	23:24:00	7.76	10.03	6/16/2010	3:36:00	10.78	5.92
6/15/2010	23:30:00	7.86	9.87	6/16/2010	3:42:00	10.72	5.99
6/15/2010	23:36:00	7.94	9.71	6/16/2010	3:48:00	10.68	6.07
6/15/2010	23:42:00	8.08	9.54	6/16/2010	3:54:00	10.63	6.16
6/15/2010	23:48:00	8.17	9.37	6/16/2010	4:00:00	10.57	6.25
6/15/2010	23:54:00	8.31	9.2	6/16/2010	4:06:00	10.5	6.34
6/16/2010	0:00:00	8.41	9.02	6/16/2010	4:12:00	10.44	6.46
6/16/2010	0:06:00	8.54	8.84	6/16/2010	4:18:00	10.34	6.6
6/16/2010	0:12:00	8.67	8.64	6/16/2010	4:24:00	10.27	6.69
6/16/2010	0:18:00	8.8	8.44	6/16/2010	4:30:00	10.19	6.83
6/16/2010	0:24:00	8.93	8.24	6/16/2010	4:36:00	10.07	6.98
6/16/2010	0:30:00	9.07	8.08	6/16/2010	4:42:00	10.02	7.08
6/16/2010	0:36:00	9.16	7.9	6/16/2010	4:48:00	9.92	7.2
6/16/2010	0:42:00	9.3	7.73	6/16/2010	4:54:00	9.86	7.31
6/16/2010	0:48:00	9.41	7.55	6/16/2010	5:00:00	9.76	7.46
6/16/2010	0:54:00	9.53	7.37	6/16/2010	5:06:00	9.68	7.57
6/16/2010	1:00:00	9.66	7.2	6/16/2010	5:12:00	9.59	7.7
6/16/2010	1:06:00	9.76	7.05	6/16/2010	5:18:00	9.49	7.84

Table C-2
Groundwater Elevation Data for Well MW-15 and Tidal Stage for Sitcum Waterway
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Date	Time[1]	DTW[2]	Stage[3]	Date	Time[1]	DTW[2]	Stage[3]
6/16/2010	5:24:00	9.43	7.97	6/16/2010	9:36:00	8.8	8.45
6/16/2010	5:30:00	9.33	8.09	6/16/2010	9:42:00	8.93	8.26
6/16/2010	5:36:00	9.23	8.21	6/16/2010	9:48:00	9.07	8.04
6/16/2010	5:42:00	9.13	8.37	6/16/2010	9:54:00	9.21	7.83
6/16/2010	5:48:00	9.07	8.47	6/16/2010	10:00:00	9.36	7.62
6/16/2010	5:54:00	8.97	8.6	6/16/2010	10:06:00	9.53	7.36
6/16/2010	6:00:00	8.87	8.74	6/16/2010	10:12:00	9.69	7.12
6/16/2010	6:06:00	8.79	8.87	6/16/2010	10:18:00	9.86	6.87
6/16/2010	6:12:00	8.69	9.02	6/16/2010	10:24:00	10.04	6.6
6/16/2010	6:18:00	8.6	9.14	6/16/2010	10:30:00	10.2	6.34
6/16/2010	6:24:00	8.47	9.27	6/16/2010	10:36:00	10.42	6.05
6/16/2010	6:30:00	8.41	9.39	6/16/2010	10:42:00	10.58	5.78
6/16/2010	6:36:00	8.34	9.5	6/16/2010	10:48:00	10.8	5.48
6/16/2010	6:42:00	8.27	9.58	6/16/2010	10:54:00	11.01	5.2
6/16/2010	6:48:00	8.19	9.68	6/16/2010	11:00:00	11.23	4.9
6/16/2010	6:54:00	8.13	9.77	6/16/2010	11:06:00	11.43	4.59
6/16/2010	7:00:00	8.06	9.85	6/16/2010	11:12:00	11.62	4.29
6/16/2010	7:06:00	7.99	9.94	6/16/2010	11:18:00	11.84	3.99
6/16/2010	7:12:00	7.93	10.03	6/16/2010	11:24:00	12.04	3.68
6/16/2010	7:18:00	7.88	10.09	6/16/2010	11:30:00	12.27	3.39
6/16/2010	7:24:00	7.84	10.12	6/16/2010	11:36:00	12.43	3.11
6/16/2010	7:30:00	7.81	10.17	6/16/2010	11:42:00	12.63	2.85
6/16/2010	7:36:00	7.78	10.21	6/16/2010	11:48:00	12.86	2.54
6/16/2010	7:42:00	7.76	10.22	6/16/2010	11:54:00	13.06	2.25
6/16/2010	7:48:00	7.75	10.23	6/16/2010	12:00:00	13.22	1.98
6/16/2010	7:54:00	7.73	10.23	6/16/2010	12:06:00	13.42	1.67
6/16/2010	8:00:00	7.73	10.22	6/16/2010	12:12:00	13.62	1.37
6/16/2010	8:06:00	7.75	10.19	6/16/2010	12:18:00	13.78	1.11
6/16/2010	8:12:00	7.76	10.16	6/16/2010	12:24:00	13.95	0.85
6/16/2010	8:18:00	7.8	10.1	6/16/2010	12:30:00	14.13	0.59
6/16/2010	8:24:00	7.83	10.02	6/16/2010	12:36:00	14.28	0.34
6/16/2010	8:30:00	7.88	9.94	6/16/2010	12:42:00	14.41	0.13
6/16/2010	8:36:00	7.91	9.87	6/16/2010	12:48:00	14.54	-0.09
6/16/2010	8:42:00	7.98	9.77	6/16/2010	12:54:00	14.71	-0.32
6/16/2010	8:48:00	8.03	9.67	6/16/2010	13:00:00	14.81	-0.52
6/16/2010	8:54:00	8.09	9.56	6/16/2010	13:06:00	14.96	-0.73
6/16/2010	9:00:00	8.17	9.45	6/16/2010	13:12:00	15.07	-0.9
6/16/2010	9:06:00	8.26	9.31	6/16/2010	13:18:00	15.17	-1.06
6/16/2010	9:12:00	8.34	9.16	6/16/2010	13:24:00	15.27	-1.22
6/16/2010	9:18:00	8.46	8.99	6/16/2010	13:30:00	15.34	-1.32
6/16/2010	9:24:00	8.57	8.81	6/16/2010	13:36:00	15.42	-1.5
6/16/2010	9:30:00	8.69	8.63	6/16/2010	13:42:00	15.52	-1.62

Table C-2
Groundwater Elevation Data for Well MW-15 and Tidal Stage for Sitcum Waterway
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Date	Time[1]	DTW[2]	Stage[3]	Date	Time[1]	DTW[2]	Stage[3]
6/16/2010	13:48:00	15.6	-1.74	6/16/2010	18:00:00	11.44	5.7
6/16/2010	13:54:00	15.63	-1.81	6/16/2010	18:06:00	11.21	6.01
6/16/2010	14:00:00	15.67	-1.85	6/16/2010	18:12:00	10.98	6.32
6/16/2010	14:06:00	15.73	-1.92	6/16/2010	18:18:00	10.75	6.64
6/16/2010	14:12:00	15.75	-1.96	6/16/2010	18:24:00	10.53	6.95
6/16/2010	14:18:00	15.78	-1.98	6/16/2010	18:30:00	10.32	7.23
6/16/2010	14:24:00	15.83	-2.04	6/16/2010	18:36:00	10.12	7.54
6/16/2010	14:30:00	15.83	-2.03	6/16/2010	18:42:00	9.89	7.82
6/16/2010	14:36:00	15.85	-2	6/16/2010	18:48:00	9.73	8.07
6/16/2010	14:42:00	15.83	-1.95	6/16/2010	18:54:00	9.53	8.34
6/16/2010	14:48:00	15.81	-1.88	6/16/2010	19:00:00	9.33	8.63
6/16/2010	14:54:00	15.8	-1.81	6/16/2010	19:06:00	9.13	8.88
6/16/2010	15:00:00	15.78	-1.72	6/16/2010	19:12:00	8.97	9.11
6/16/2010	15:06:00	15.73	-1.64	6/16/2010	19:18:00	8.77	9.36
6/16/2010	15:12:00	15.72	-1.52	6/16/2010	19:24:00	8.6	9.57
6/16/2010	15:18:00	15.65	-1.35	6/16/2010	19:30:00	8.46	9.77
6/16/2010	15:24:00	15.6	-1.23	6/16/2010	19:36:00	8.29	10.02
6/16/2010	15:30:00	15.55	-1.11	6/16/2010	19:42:00	8.13	10.22
6/16/2010	15:36:00	15.47	-0.94	6/16/2010	19:48:00	7.99	10.39
6/16/2010	15:42:00	15.39	-0.76	6/16/2010	19:54:00	7.84	10.59
6/16/2010	15:48:00	15.27	-0.56	6/16/2010	20:00:00	7.68	10.78
6/16/2010	15:54:00	15.17	-0.36	6/16/2010	20:06:00	7.58	10.93
6/16/2010	16:00:00	15.06	-0.13	6/16/2010	20:12:00	7.45	11.09
6/16/2010	16:06:00	14.94	0.1	6/16/2010	20:18:00	7.35	11.24
6/16/2010	16:12:00	14.81	0.33	6/16/2010	20:24:00	7.25	11.35
6/16/2010	16:18:00	14.68	0.59	6/16/2010	20:30:00	7.14	11.48
6/16/2010	16:24:00	14.54	0.83	6/16/2010	20:36:00	7.05	11.58
6/16/2010	16:30:00	14.4	1.07	6/16/2010	20:42:00	6.99	11.67
6/16/2010	16:36:00	14.25	1.34	6/16/2010	20:48:00	6.89	11.77
6/16/2010	16:42:00	14.1	1.62	6/16/2010	20:54:00	6.81	11.87
6/16/2010	16:48:00	13.95	1.88	6/16/2010	21:00:00	6.76	11.92
6/16/2010	16:54:00	13.75	2.17	6/16/2010	21:06:00	6.71	11.98
6/16/2010	17:00:00	13.59	2.47	6/16/2010	21:12:00	6.62	12.06
6/16/2010	17:06:00	13.41	2.75	6/16/2010	21:18:00	6.61	12.09
6/16/2010	17:12:00	13.21	3.07	6/16/2010	21:24:00	6.57	12.11
6/16/2010	17:18:00	12.99	3.4	6/16/2010	21:30:00	6.49	12.18
6/16/2010	17:24:00	12.79	3.71	6/16/2010	21:36:00	6.49	12.18
6/16/2010	17:30:00	12.56	4.04	6/16/2010	21:42:00	6.48	12.19
6/16/2010	17:36:00	12.33	4.38	6/16/2010	21:48:00	6.44	12.2
6/16/2010	17:42:00	12.1	4.71	6/16/2010	21:54:00	6.44	12.19
6/16/2010	17:48:00	11.87	5.04	6/16/2010	22:00:00	6.44	12.16
6/16/2010	17:54:00	11.64	5.36	6/16/2010	22:06:00	6.46	12.13

Table C-2
Groundwater Elevation Data for Well MW-15 and Tidal Stage for Sitcum Waterway
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Date	Time[1]	DTW[2]	Stage[3]	Date	Time[1]	DTW[2]	Stage[3]
6/16/2010	22:12:00	6.48	12.08	6/17/2010	2:24:00	10.65	5.7
6/16/2010	22:18:00	6.49	12	6/17/2010	2:30:00	10.77	5.57
6/16/2010	22:24:00	6.56	11.95	6/17/2010	2:36:00	10.85	5.46
6/16/2010	22:30:00	6.56	11.89	6/17/2010	2:42:00	10.91	5.36
6/16/2010	22:36:00	6.61	11.82	6/17/2010	2:48:00	11.01	5.24
6/16/2010	22:42:00	6.64	11.74	6/17/2010	2:54:00	11.08	5.14
6/16/2010	22:48:00	6.69	11.66	6/17/2010	3:00:00	11.16	5.08
6/16/2010	22:54:00	6.76	11.55	6/17/2010	3:06:00	11.21	5
6/16/2010	23:00:00	6.81	11.47	6/17/2010	3:12:00	11.28	4.94
6/16/2010	23:06:00	6.85	11.37	6/17/2010	3:18:00	11.31	4.89
6/16/2010	23:12:00	6.92	11.26	6/17/2010	3:24:00	11.38	4.83
6/16/2010	23:18:00	7	11.15	6/17/2010	3:30:00	11.39	4.78
6/16/2010	23:24:00	7.07	11.03	6/17/2010	3:36:00	11.44	4.76
6/16/2010	23:30:00	7.14	10.9	6/17/2010	3:42:00	11.46	4.72
6/16/2010	23:36:00	7.22	10.81	6/17/2010	3:48:00	11.47	4.72
6/16/2010	23:42:00	7.33	10.57	6/17/2010	3:54:00	11.47	4.73
6/16/2010	23:48:00	7.42	10.41	6/17/2010	4:00:00	11.47	4.74
6/16/2010	23:54:00	7.53	10.26	6/17/2010	4:06:00	11.47	4.77
6/17/2010	0:00:00	7.61	10.12	6/17/2010	4:12:00	11.46	4.79
6/17/2010	0:06:00	7.75	9.95	6/17/2010	4:18:00	11.46	4.82
6/17/2010	0:12:00	7.86	9.79	6/17/2010	4:24:00	11.44	4.86
6/17/2010	0:18:00	7.94	9.64	6/17/2010	4:30:00	11.44	4.9
6/17/2010	0:24:00	8.08	9.47	6/17/2010	4:36:00	11.39	4.95
6/17/2010	0:30:00	8.21	9.26	6/17/2010	4:42:00	11.36	5.02
6/17/2010	0:36:00	8.34	9.07	6/17/2010	4:48:00	11.31	5.1
6/17/2010	0:42:00	8.47	8.86	6/17/2010	4:54:00	11.24	5.2
6/17/2010	0:48:00	8.6	8.64	6/17/2010	5:00:00	11.19	5.3
6/17/2010	0:54:00	8.74	8.42	6/17/2010	5:06:00	11.14	5.39
6/17/2010	1:00:00	8.87	8.23	6/17/2010	5:12:00	11.06	5.52
6/17/2010	1:06:00	9	8.02	6/17/2010	5:18:00	11	5.59
6/17/2010	1:12:00	9.18	7.81	6/17/2010	5:24:00	10.91	5.71
6/17/2010	1:18:00	9.3	7.61	6/17/2010	5:30:00	10.83	5.84
6/17/2010	1:24:00	9.45	7.4	6/17/2010	5:36:00	10.78	5.94
6/17/2010	1:30:00	9.59	7.17	6/17/2010	5:42:00	10.68	6.05
6/17/2010	1:36:00	9.71	7.01	6/17/2010	5:48:00	10.58	6.2
6/17/2010	1:42:00	9.84	6.83	6/17/2010	5:54:00	10.5	6.32
6/17/2010	1:48:00	9.99	6.62	6/17/2010	6:00:00	10.42	6.45
6/17/2010	1:54:00	10.09	6.49	6/17/2010	6:06:00	10.32	6.58
6/17/2010	2:00:00	10.19	6.33	6/17/2010	6:12:00	10.24	6.72
6/17/2010	2:06:00	10.34	6.13	6/17/2010	6:18:00	10.15	6.85
6/17/2010	2:12:00	10.45	5.97	6/17/2010	6:24:00	10.06	6.96
6/17/2010	2:18:00	10.55	5.84	6/17/2010	6:30:00	9.96	7.1

Table C-2
Groundwater Elevation Data for Well MW-15 and Tidal Stage for Sitcum Waterway
Data Gap Investigation Report
Former Sound Mattress and Felt Company Property
Tacoma, Washington
Pacific Crest PN: 110-001

Date	Time[1]	DTW[2]	Stage[3]	Date	Time[1]	DTW[2]	Stage[3]
6/17/2010	6:36:00	9.86	7.24	6/17/2010	9:48:00	8.52	8.92
6/17/2010	6:42:00	9.79	7.36	6/17/2010	9:54:00	8.59	8.82
6/17/2010	6:48:00	9.69	7.51	6/17/2010	10:00:00	8.64	8.7
6/17/2010	6:54:00	9.59	7.65	6/17/2010	10:06:00	8.72	8.58
6/17/2010	7:00:00	9.49	7.76	6/17/2010	10:12:00	8.8	8.45
6/17/2010	7:06:00	9.4	7.9	6/17/2010	10:18:00	8.9	8.3
6/17/2010	7:12:00	9.31	8.03	6/17/2010	10:24:00	9	8.16
6/17/2010	7:18:00	9.21	8.17	6/17/2010	10:30:00	9.1	7.99
6/17/2010	7:24:00	9.13	8.29	6/17/2010	10:36:00	9.21	7.82
6/17/2010	7:30:00	9.03	8.43	6/17/2010	10:42:00	9.31	7.66
6/17/2010	7:36:00	8.93	8.54	6/17/2010	10:48:00	9.43	7.48
6/17/2010	7:42:00	8.85	8.66	6/17/2010	10:54:00	9.53	7.3
6/17/2010	7:48:00	8.79	8.75	6/17/2010	11:00:00	9.66	7.12
6/17/2010	7:54:00	8.74	8.84	6/17/2010	11:06:00	9.79	6.92
6/17/2010	8:00:00	8.65	8.93	6/17/2010	11:12:00	9.94	6.73
6/17/2010	8:06:00	8.6	9	6/17/2010	11:18:00	10.06	6.54
6/17/2010	8:12:00	8.54	9.07	6/17/2010	11:24:00	10.22	6.31
6/17/2010	8:18:00	8.47	9.13	6/17/2010	11:30:00	10.37	6.1
6/17/2010	8:24:00	8.44	9.19	6/17/2010	11:36:00	10.52	5.86
6/17/2010	8:30:00	8.41	9.23	6/17/2010	11:42:00	10.68	5.62
6/17/2010	8:36:00	8.39	9.25	6/17/2010	11:48:00	10.85	5.36
6/17/2010	8:42:00	8.36	9.28	6/17/2010	11:54:00	11.05	5.1
6/17/2010	8:48:00	8.34	9.31	6/17/2010	12:00:00	11.21	4.84
6/17/2010	8:54:00	8.32	9.3	6/17/2010	12:06:00	11.38	4.6
6/17/2010	9:00:00	8.32	9.3	6/17/2010	12:12:00	11.56	4.32
6/17/2010	9:06:00	8.32	9.29	6/17/2010	12:18:00	11.76	4.08
6/17/2010	9:12:00	8.32	9.27	6/17/2010	12:24:00	11.9	3.82
6/17/2010	9:18:00	8.34	9.25	6/17/2010	12:30:00	12.1	3.57
6/17/2010	9:24:00	8.34	9.21	6/17/2010	12:36:00	12.37	3.34
6/17/2010	9:30:00	8.37	9.15	6/17/2010	12:42:00	12.51	3.09
6/17/2010	9:36:00	8.41	9.09	6/17/2010	12:48:00	12.98	2.84
6/17/2010	9:42:00	8.46	9.01				

Notes:

[1]Pacific Standard Time (June 15 & 16, 2010)

[2]Depth to Water (DTW) in feet below top of casing in well MW-15. Data compensated using the average of hourly barometric pressure readings from NOAA Station 9446484.

[3]Tidal Stage in feet relative to Mean Low Low Water at NOAA Station 9446484, located in the Sitcum Waterway, Tacoma, Washington

Chart C-1
Depth to Water in MW-15 and Sitcum Waterway Tidal Stage
Data Gap Investgation Report
Former Sound Mattress and Felt Compny Property
Tacoma, Washington
Pacific Crest PN: 110-001